INVITATION TO BID AND INSTRUCTIONS TO BIDDERS

FY2014-126

STREET MILLING AND RESURFACING PROJECT

<u>BID OPENING</u>

March 20, 2014
2:30 p.m., Local Time

at the
Central Services Complex Materials Management Conference Room
City of Oak Ridge
100 Woodbury Lane
P. O. Box 1
Oak Ridge, Tennessee 37831-0001

Telephone: (865) 425-1819
Fax: (865) 482-8475
Attn: Lyn Majeski

CITY OF OAK RIDGE, TENNESSEE
Invitation to Bid and Instructions to Bidders

FY2014-126 **March 3, 2014**

Project: Street Milling and Resurfacing Project

Invitation

Bids will be received by the City of Oak Ridge until 2:30 p.m., local time, March 20, 2014, then publicly opened in the Central Services Complex Materials Management Conference Room at 100 Woodbury Lane, Oak Ridge, Tennessee, for furnishing all labor, materials, supplies, tools, and equipment necessary to perform all work and services described in the Contract attached hereto, in strict accordance with the terms and provisions of said Contract and any attachments thereto. (See attached Specifications)

The project must be completed by June 30, 2014.

All bids must be completed and submitted on the Bid Form provided. The bids shall be submitted on or before the time set for the opening of bids. Bids received after the time so set are late bids and will not be considered. Late bids, unmarked envelopes, and incorrectly marked envelopes will not be opened. Electronic bids are not accepted.

Discrepancies

Should the Bidder find any discrepancies in, or omission from, the bid documents, or should the Bidder be in doubt as to their meaning, the Bidder shall at once notify Lyn Majeski at (865) 425-1819 and obtain an interpretation or clarification prior to submitting a bid. Any interpretation or clarification given in accordance with this provision shall be in writing and will be distributed to all known Bidders. Only questions answered in writing will be binding. Oral and other interpretations or clarifications will be without legal effect. All questions must be submitted to Lyn Majeski no later than six (6) days prior to the bid opening date in order to give sufficient time for responses to be sent to all prospective bidders.

Prices

The Bidder shall submit unit bid prices as specified on Bid Form. It is agreed that this bid document in its entirety is included in and made a part of the contract between the City and the successful Bidder.

Discrepancies between the multiplication of units of work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

Withdrawal of Bids

Bids may be withdrawn on written or telegraphic request received from Bidders prior to the time fixed for opening the bids.

Rejection of Bids

The City reserves the right to reject any and all bids when such rejection is in the interest of the City of Oak Ridge; to reject the bid of a Bidder who has previously failed to perform properly or complete on time jobs of a similar nature; to reject the bid of a Bidder who is not, in the opinion of the City, in a position to perform the Contract, and to reject the bid of a Bidder not submitted in accordance with this Invitation to Bid.

References

Upon request, each Bidder shall furnish references for whom work similar to that covered by the specifications herein was performed, the year in which such work was performed and the manner of its execution, and giving such other information as will tend to show the Bidder's ability to perform the required work.

Equipment

The Bidder shall have available under Bidder's control, tools and equipment of the type, character and amount required to complete the proposed work within the specified time. Each Bidder shall furnish a list of the tools and equipment proposed for use on the work if requested.

Personnel

Each Bidder shall have available or shall agree to have available under Bidder's control sufficient equipment and personnel to complete the proposed work within the specified time.

Method of Work

Upon request, each Bidder shall describe the method or methods to be used in the performance of the required work.

Bidders Interested in More than One Bid

A party who has quoted prices to a Bidder is not thereby disqualified from quoting prices to other Bidders or from submitting a bid directly for the work; however, more than one bid for the same work from an individual or entity under the same or different name will not be considered.

Bid Surety

Each bid shall be accompanied by a bid guarantee payable to the City in the amount of ten percent (10%) of the total bid amount. The form of the bid guarantee shall be a bid bond or other suitable instrument (i.e. cashier’s check, certified check, or Letter of Credit). The bid guarantees of unsuccessful Bidders shall be return to them by the City within fifteen (15) consecutive calendar days after execution of the Contract.

Drug-Free Workplace Affidavit Form

A Drug-Free Workplace Affidavit form is included in this bid package and must be submitted with the bid.

Insurance

The successful Bidder will be required to maintain Worker's Compensation, Comprehensive General Liability, and Comprehensive Automobile Liability and Property Damage Insurance in accordance with the provisions of the Contract Documents. The City of Oak Ridge, Tennessee shall be named as an additional insured.

Completion and Performance Bond, and Labor and Material Bond

The Contractor agrees to furnish a Completion and Performance Bond in the amount of one hundred percent (100%) of the Contract price (contract price per year, not total over life of contract) with good and sufficient surety or sureties acceptable to the City in connection with the performance of the work under this Contract. The form and conditions of said Completion and Performance Bond shall be as prescribed by the City.

The Contractor agrees to furnish a Labor and Material Bond in the amount of one hundred percent (100%) of the Contract price (contract price per year, not total over life of contract) with good and sufficient surety or sureties acceptable to the City, for the protection of persons furnishing labor and material in connection with the performance of the work under this Contract. The form and conditions of this bond shall be as prescribed by the City.

Award of Contract

The City will make the award as soon as practicable to the lowest responsible Bidder, price and other factors considered, provided it is reasonable and in the best interest of the City. The City reserves the right to award the contract to more than one bidder if in the best interest of the City. The successful Bidder(s) shall be required to execute the Contract attached hereto.

City Officers and Employees Not To Have Financial Interest

No contract shall be made with any officer or employee of the City or any firm or corporation in which any officer or employee of the City has financial interest.

Compliance with All Laws, Ordinances, Statutes, and Regulations

The Contractor shall comply with all federal, state, county and local laws, ordinances, statutes, and regulations. Pursuant to City Code § 5-413, the City may not accept bids from Bidders in default of any payment of any nature due to the City, including but not limited to taxes, licenses and fees.

Anti-Discrimination

The selected Bidder, in performing the work or furnishing the services covered by this project, shall not discriminate against any person because of race, creed, color, national origin, age, sex, sexual orientation, disability, religion or other legally protected status. The City of Oak Ridge encourages the utilization of minority and women-owned businesses in its contracting and subcontracting projects.

Tobacco Products

The selected Bidder and its employees/subcontractors shall comply with all building policies, regulations, schedules and rules as set out and required by the City. Please note smoking and the use of tobacco products (chewing) is prohibited in City facilities. For any work done at City facilities, any smoking occurring outside of the buildings must occur at least twenty (20) feet away from any entrance, open window or other opening into which smoke could infiltrate into the building. Spent smoking materials are to be properly discarded and not littered on the grounds.

Background Checks

The selected Bidder shall only furnish employees who are competent and skilled for work under this contract. If, in the opinion of the City, an employee of the selected contractor is incompetent or disorderly, refuses to perform in accordance with the terms and conditions of the contract, threatens or uses abusive language while on City property, or is otherwise unsatisfactory, that employee shall be removed from all work under this contract. The selected contractor's employees working on this project may be subject to police background checks at the sole discretion of the City.

Bid Submittal Instructions

Pursuant to Tennessee Code Annotated § 62-6-119, each bid must be submitted in an opaque sealed envelope marked and addressed on the outside as follows:

From: Bidder's Name
Bidder's Address
*General Contractor's State of Tennessee License Number
*Bidder's License Date of Registration
*Bidder's License Category or Classification
*Bidder's License Expiration Date

*If bid equals or exceeds $25,000, include this information if a contractor's license is required for this project per the State of Tennessee's Contractors Licensing Board. (The same information must also be provided for major subcontractors.)

To:

In Person or By Overnight Delivery	Regular Mail
Attn: Lyn Majeski Finance Department City of Oak Ridge 100 Woodbury Lane Oak Ridge, TN 37830	Attn: Lyn Majeski Finance Department City of Oak Ridge P.O. Box 1 Oak Ridge, TN 37831-0001

If the bid is submitted by mail rather than hand-delivery, the sealed envelope containing the bid must be enclosed in another envelope addressed as stated above. Bids submitted by mail should indicate on the outside envelope, lower left corner, the following: "Sealed bid for FY2014-126: Street Milling and Resurfacing Project to be opened March 20, 2014 at 2:30 p.m. local time" to ensure the bid is delivered to the appropriate person at the City in a timely fashion. Late bids are not accepted and will not be opened.

FY2014-126 BID FORM

Project: <u>Street Milling and Resurfacing Project</u>

In compliance with the Invitation for Bids, dated March 3, 2014, the undersigned Bidder:

_____

* a corporation organized and existing under the laws of the State of: _____

* a partnership consisting of: _____

_____

_____

*an individual trading as: _____

_____

(*fill in as appropriate)

of the City of _____ in the State of _____ agrees that if this bid is accepted as hereinafter provided, it will furnish all labor, materials, supplies, tools, and equipment necessary to perform all work and services described in the Invitation for Bid and Instructions to Bidders, in strict accordance with the terms and provisions of the Contract attached thereto.

If written Notice of Award is received, the Bidder agrees to furnish to the City of Oak Ridge, within ten (10) working days after receipt of said Notice of Award, the Completion and Performance Bond; Labor and Material Bond or other suitable securities; and required insurance certificates naming the City of Oak Ridge as an additional insured.

Bidder acknowledges receipt the following addenda:

_____

_____

_____

Bidder understands that the City reserves the right to reject any or all bids and to waive any informality in the bidding.

Bidder agrees that this bid shall be good for a period of ninety (90) days from the date of opening.

FY2014-126 BID FORM
(continued)

Item No	Description	Unit	Quantity	X	Column A Unit Price	=	Column B Amount
1.	Type “A” Wedge Milling, 6’ Wide (0.75” @ Curb to 0.0”, 6’ from Curb)	LF	0	X		=	$
2.	Type “B” Wedge Milling, 6’ Wide (1.0” @ Curb to 0.0”, 6’ from Curb)	LF	19,788	X		=	$
3.	Type “C” Wedge Milling, 6’ Wide (1.25” @ Curb to 25”, 6’ from Curb)	LF	0	X		=	$
4.	Type “D” Wedge Milling, 2” at both curbs to 1” uniform milling 6’ from curbs for remaining width	SY	28,750	X		=	$
5.	Type “E” Uniform Depth Milling, (0.75” Deep)	SY	0	X		=	$
6.	Type “F” Uniform Depth Milling, (1.0” Deep)	SY	19, 581	X		=	$
7.	Type “G” Uniform Depth Milling, (1.5” Deep)	SY	22,702	X		=	$
8.	Type “H” Uniform Depth Milling, (1.75” Deep)	SY	0	X		=	$
9.	Type “I” Uniform Depth Milling, (2.0” Deep)	SY	0	X		=	$
10.	Type “J” Uniform Depth Milling, (3.0” Deep)	SY	0	X		=	$
11.	3/4” Hot-Mix Overlay, (Fine E)	SY	0	X		=	$
12.	1.0” Hot-Mix Overlay, (Fine E)	SY	78,961	X		=	$
13.	1.25” Hot-Mix Overlay, (Fine E)	SY	0	X		=	$
14.	1.5” Hot-Mix Overlay, (TDOT “E”)	SY	22,702	X		=	$
15.	Leveling Mix, (TDOT “CS”)	Ton	5	X		=	$

16.	1.5” Hot-Mix Overlay, (TDOT “D”)	SY	4,590	X		=	$
17.	2.0” Hot-Mix Overlay, (TDOT “E”)	SY	3,394	X		=	$
18.	Shoulder Stone (Type A Grade D) In place on Belgrade Rd. 2” depth at EOP to 0” at 4” from EOP	Ton	45			=	$
19.	White 24” Wide Thermo Plastic	LF	399				
20.	White 8” Wide Thermo Plastic	LF	35				
21.	White 18” Wide Thermo Plastic	LF	48				
22.	White 12” Wide Thermo Plastic	LF	48				
23.	White 6” Wide Thermo Plastic	LF	8				
24.	Turn Arrow Thermo Plastic	each	10				
25.	Combination Turn & Thru Arrow Thermo Plastic	each	3				
26.	Word “ONLY” Thermo Plastic	each	3				
27.	Double Yellow Line Paint	LF	20,100				
28.	White 4” Wide Line Thermo Plastic	LF	550				
29.	White 4” Line Paint	LF	7800				
			TOTAL BID AMOUNT			$	

Total Bid Price (from previous page)

Street Milling and Resurfacing Project $_____

_____Dollars and _____ Cents

Bidder acknowledges receipt of the following addenda:

Addendum No. _____ Date: _____ Addendum No. _____ Date: _____
Addendum No. _____ Date: _____ Addendum No. _____ Date: _____
Addendum No. _____ Date: _____ Addendum No. _____ Date: _____

Bidder attests that no officers or employees of the City of Oak Ridge are members of, or have financial interest in, the business submitting this bid.

By:_____ Telephone #:_____
Signature

Name:_____ Fax #_____

Title: _____ Email: _____

Business
Name:_____ Date:_____

Mailing
Address:_____ Physical
Address:_____

_____ _____

Tax ID Number:_____

NOTE: In accordance with the Invitation to Bid, the following attachments are required: a Bid Bond in the amount of ten percent (10%) of the total bid price and the Drug Free Workplace Affidavit.

BID BOND

FY2014-126

KNOW ALL MEN BY THESE PRESENTS,

That we, _____,

(hereinafter called the "Principal"), as Principal, and the _____ , of

_____ a

corporation duly organized under the laws of the State of _____

(hereinafter called the "Surety"), as Surety, are held and firmly bound unto the City of Oak Ridge, Tennessee, (hereinafter called the "Obligee"), as Obligee, in the sum of ten percent (10%) of the bid price for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for:

_____.

NOW THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the Invitation to Bid and Instructions to Bidders with good and sufficient surety for the faithful performance of such contract, or in the event of the failure of the Principal to enter such contract and give such bond, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this _____ day of _____ A.D. 2014.

IN THE PRESENCE OF:

_____(Seal)
Principal

_____ _____
Witness Title

_____ _____(Seal)
Witness Surety

_____
Title

DRUG-FREE WORKPLACE AFFIDAVIT

STATE OF_____)
)
COUNTY OF _____)

The undersigned principal officer of _____, an employer of five (5) or more employees, contracting with the City of Oak Ridge, Tennessee, to provide construction services, hereby states under oath as follows:

1. That the undersigned is a principal officer of _____ _____ (hereinafter referred to as the "Company") and is duly authorized to execute this Affidavit on behalf of the Company.

2. The Company submits this Affidavit pursuant to Tennessee Code Annotated § 50-9-113, which requires each employer with no less than five (5) employees receiving pay who contracts with the state or any local government to provide construction services or who is awarded a contract to provide construction services or who provides construction services to the state or local government to submit an affidavit stating that such employer has a drug-free workplace program that complies with Title 50, Chapter 9 of the Tennessee Code.

3. The Company is in compliance with Tennessee Code Annotated § 50-9-113.

Further affiant saith not.

_____
Principal Officer

State of _____)
)ss.
County of _____)

Before me personally appeared _____ with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence) and who acknowledged that such person executed the foregoing affidavit for the purposes therein contained.

Witness my hand and official seal this _____ day of _____, 2014.

_____
Notary Public

My Commission Expires:_____.

CONTRACT

FY2014-126

THIS CONTRACT entered into this _____ day of _____, 2014, by and between the CITY OF OAK RIDGE, TENNESSEE, a municipal corporation, hereinafter called the "City," and

_____,

a _____, hereinafter called the "Contractor."

WITNESSETH

In consideration of the mutual promises of the parties hereto, the parties do hereby agree as follows:

ARTICLE 1 – Scope of This Contract

The work to be done consists of furnishing all labor, materials, supplies, tools, equipment and other incidentals necessary to perform all work and services required for the street milling and resurfacing project in accordance with the attached Specifications. All work performed under this Contract shall be in strict accordance with the terms and provisions of this Contract, the Scope of Work, and the bid of the Contractor, all attached hereto and incorporated herein by reference.

In performance of this Contract, the Contractor binds himself to the City to comply fully with all provisions, undertakings, and obligations hereinafter set forth.

ARTICLE 2 – Term

This Contract shall become effective upon its execution and shall continue in full force and effect through December 31, 2014. Work shall be completed after the Contractor's receipt of a written Notice to Proceed and by completed by June 30, 2014, unless an alternate schedule is approved by the parties in writing. Roger Flynn is the City's contact for this project and can be reached at (865) 425-1875 or rflynn@oakridgetn.gov.

ARTICLE 3 – Changes

A. City may, by written order, and without notice to the Sureties, make changes in the specifications of this Contract within the general scope thereof. If any such changes cause an increase or decrease in the scope of this Contract or in the time required for its performance, an equitable adjustment shall be made and this Contract shall be modified in writing accordingly.

B. Should the Contractor encounter conditions materially different from those shown in the specifications, the City shall be notified in writing immediately of such conditions before they are disturbed. The City shall thereupon promptly investigate the conditions and if it finds that they do so materially differ from those specified, this Contract shall be modified to provide for any increase or decrease of cost and difference in time resulting from the conditions so found.

C. Except as otherwise herein provided, no charge for any extra work or material will be allotted unless the same has been approved in writing by the City, and the price stated.

ARTICLE 4 – Inspections and Defective Work

All workmanship and services shall be subject to inspections, examinations and tests by the City at any and all times during the performance of this Contract. The City shall have the right to reject defective workmanship and to require correction. Rejected workmanship shall be satisfactorily corrected without charge therefore. If the Contractor fails to proceed at once to correct such defective workmanship, the City may proceed with such corrective work and the Contractor shall be liable for all direct cost occasioned in the performance therefore.

This provision does not negate, modify or replace any warranties contained elsewhere in this Contract. This provision shall survive the termination or suspension of this Contract.

Neither payment nor any provisions in the Contract document shall relieve the Contractor of responsibility for faulty materials or defective workmanship. The City shall give notice of observed defects with reasonable promptness. The deterioration due to ordinary use and normal wear is excepted from this guarantee.

The Contractor shall reimburse the City for the cost of damage, if any, as well as the cost of replacing defective materials or workmanship. If replacements are not made within ten (10) days after notice is given of such defect in workmanship, or thirty (30) days in case of materials, then the City shall have the right to make replacements and charge the cost of same to Contractor or the Contractor's surety.

ARTICLE 5 – Site Investigation

The Contractor represents that it has visited the site and determined the nature of the work and the difficulties and facilities attending execution of the work, and all other matters, which can in any way affect the work under this Contract.

ARTICLE 6 – Delays, Damages

If the Contractor refuses or fails to prosecute the work with such diligence as will ensure its completion within the time specified in Article 2, or fails to complete the work within such time, the City may terminate this Contract. In such event, the City may take over the work and prosecute the same to completion by contract or otherwise, and the Contractor shall be liable to the City for any excess cost occasioned thereby. If this Contract is so terminated, the City may take possession of and utilize in completing the work such materials, appliances, tools and equipment as may be on the site of the work and necessary therefore.

ARTICLE 7 – Payment

As consideration for performing all work and services set forth in this Contract, and as full consideration thereof, the City agrees to pay the Contractor $_____ in accordance with the bid sheet of the Contractor which is incorporated by reference into this Contract. Payment shall be made within thirty (30) days of satisfactory completion of the work.

ARTICLE 8 – Final Payment

Upon completion of the work and services covered by this Contract and before final payment, the Contractor must furnish evidence to satisfy the City that all suppliers of materials used and all labor and other employees working for the Contractor pursuant to this Contract have been fully paid. Upon final payment, the City is to be released from all liability whatsoever growing out of this Contract.

ARTICLE 9 – Indemnification by Contractor

To the fullest extent permitted by all applicable laws and regulations, the Contractor hereby agrees to protect, indemnify and hold harmless the City and their consultants, agents and employees from and against any and all claims, loss, expense, damage, charges and costs direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professional and court costs), collectively referred to as "claims," for injury to or death of persons and injury to or destruction of property suffered or alleged to have been suffered as a result of any act or omission on the part of the Contractor, any of the Contractor's subcontractors, anyone for whose acts any of them may be liable, or others whose services are engaged by the Contractor or anyone directly or indirectly employed or controlled by either of them in the course of the performance of the work provided for in the Contract, except such injury, destruction or death as may be caused by the sole negligence or fault of the City.

When the City submits notice, the Contractor shall promptly defend any aforementioned action. In any and all claims against the City or any of their consultants, agents or employees by any employee of the Contractor, any of the Contractor's subcontractors, anyone for whose acts any of them may be liable, or others whose services are engaged by the Contractor or anyone directly or indirectly employed or controlled by either of them in the course of the performance of the work provided for in the Contract, the indemnification obligation described herein shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts. The limits of insurance required in this Contract shall not limit the Contractor's obligations under this article.

The terms of this article shall survive the termination or suspension of this Contract.

ARTICLE 10 – Completion and Performance Bond and Labor and Material Bond

A. Completion and Performance Bond

Prior to commencing work under this Contract, the Contractor agrees to furnish and to maintain during the term of this Contract a Completion and Performance Bond in the amount of one hundred percent (100%) of the Contract price with good and sufficient surety or sureties acceptable to the City in connection with the performance of the work under this Contract, including any amendments or extensions hereof. The form and conditions of said Performance Bond shall be as prescribed by the City. The bond will be required at the beginning of each contract term and will be in an amount equal to the contract price for that year.

In lieu of a Performance Bond, the City will accept other suitable Securities agreed upon by both parties. At all times during the term of this Contract, the Contractor shall provide the City with evidence that the Contractor has obtained such Performance Bond or Securities. A certificate from the surety showing that the bond premiums have been paid by the Contractor shall accompany the bond.

B. Labor and Material Bond

Prior to commencing work under this Contract, the Contractor agrees to furnish and to maintain during the term of this Contract a Labor and Material Bond in the amount of one hundred percent (100%) of the Contract price with good and sufficient surety or sureties acceptable to the City, conditioned that the Contractor shall promptly make payments to the persons supplying labor, material, or supplies to the Contractor or subcontractors in the performance of the work under this Contract and any amendment or extension thereof. The form and conditions of this bond shall be as prescribed by the City. The bond will be required at the beginning of each contract term and will be in an amount equal to the contract price for that year.

In lieu of a Labor and Material Bond, the City will accept other suitable Securities agreed upon by both parties. At all times during the term of this Contract, the Contractor shall provide the City with evidence that the Contractor has obtained such Labor and Material Bond or Securities. A certificate from the surety showing that the bond premiums have been paid by the Contractor shall accompany the bond.

ARTICLE 11 – Rate of Progress

Notwithstanding any other provisions in this Contract, the Contractor shall furnish sufficient labor, materials, supplies, tools, and equipment, and shall work such hours, including overtime, Sundays, and/or Holidays, as may be necessary to carry out the work in accordance with the approved schedules for its completion not later than the respective times allowed for completion set forth in these Contract Documents. Should the Contractor refuse or fail to comply with its obligations set forth in the preceding sentence after receipt of any written directive or request by the City that the Contractor furnish additional labor, materials, supplies, tools, and equipment, and/or work additional hours, including overtime, Sundays, and/or Holidays, the City may terminate the Contractor's right to proceed with the whole or any part of the work under this Contract.

ARTICLE 12 – Compliance with All Laws, Ordinances, Statutes, and Regulations

The Contractor shall comply with all federal, state, county and local laws, ordinances, statutes, and regulations.

ARTICLE 13 – Insurance

The Contractor shall at all times during the Contract maintain in full force and effect Comprehensive General Liability, Workers' Compensation and Property Damage Insurance in the amounts set forth below and naming the City of Oak Ridge, Tennessee as an *additional insured*.

The Contractor shall maintain policies providing the following insurance protection, each policy containing a requirement that, in the event of change or cancellation, thirty (30) days' prior written notice be sent by mail to the City. Certificates of Insurance describing the coverage shall be furnished by the Contractor and shall contain the following express obligation:

"This is to certify that the policies of insurance described herein have been issued to the insured for whom this certificate is issued and are in force at this time. In the event of cancellation or material change in a policy affecting the certificate holder, thirty (30) days' prior written notice will be given the certificate holder."

1. Comprehensive General Liability:

Bodily Injury	$300,000	each occurrence
	$700,000	aggregate
Property Damage	$100,000	each occurrence
Or Combined Single Limit of	$1,000,000	

2. Workers' Compensation and Employer's Liability as provided for in applicable statutes.

3. Comprehensive Automobile Liability (Including all owned, non-owned and hired vehicles)

Bodily Injury	$300,000 $700,000	each person each occurrence
Property Damage	$100,000	each occurrence
Or Combined Single Limit of	$1,000,000	

The Contractor may purchase at its own expense such additional or other insurance protection as it may deem necessary. Maintenance of the required minimum insurance protection does not relieve the Contractor of responsibility for any losses not covered by the above-required policies.

Before commencement of work hereunder, the Contractor agrees to furnish to the City of Oak Ridge (Legal Department, P.O. Box 1, Oak Ridge, Tennessee 37831-0001) a Certificate of Insurance or other evidence satisfactory to the City to the effect that such insurance has been procured and is in force.

ARTICLE 14 – Permits and Licenses

The Contractor shall obtain, at the Contractor's expense, all permits, licenses and bonds required by law or ordinance and maintain the same in full force and effect.

ARTICLE 15 – Subcontracting and Assignment

A. The Contractor may utilize the services of specialty subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty subcontractors.

B. The Contractor shall not award, assign, transfer or pledge any work to any subcontractor without prior written approval of the City, which approval will not be given until the Contractor submits to the city a written statement concerning the proposed award to the subcontractor, which statement shall contain such information as the City may require.

C. The Contractor shall be as fully responsible to the City for the acts and omissions of subcontractors, and of persons either directly or indirectly employed by said subcontractors, as the Contractor is for the acts and omissions of persons directly employed by the Contractor.

D. The Contractor shall make a condition of all subcontracts and/or cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards terminating any subcontract that the City may exercise over the Contractor under any provision of the Contract Documents.

E. Nothing contained in this Contract shall create any contractual relation between any subcontractor and the City.

ARTICLE 16 – Superintendence by the Contractor

The Contractor shall give its personal superintendence to the work or have a competent foreman or superintendent satisfactory to the City on the site at all times during the progress of the work, with authority to act on behalf of the Contractor.

ARTICLE 17 – Termination

Notwithstanding any other provisions in this Contract, the Contractor shall furnish all labor, materials, supplies, tools and equipment necessary to perform the work and services within allowed times for completion as set forth in these Contract Documents. Should the Contractor refuse or fail to comply with its obligations, or in the event the Contractor shall violate any of the provisions of this Contract, or the quality or quantity of the work performed is, in the judgment of the City, below standard and therefore unsatisfactory, the City shall have the right to cancel this Contract upon thirty (30) days written notice to the Contractor and to complete the work undertaken by the Contractor without incurring any liability to the Contractor except to pay the Contractor the fair value to the City of the work satisfactorily performed by the Contractor.

ARTICLE 18 – Termination of Contract for Cause

If, through any cause, the Contractor shall fail to fulfill in timely and proper manner the obligations under this Contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall thereupon have the right to terminate this Contract by giving written notice to the Contractor of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by the Contractor under this Contract shall, at the option of the City, become the City's property and the Contractor shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

Notwithstanding the above, the Contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of the Contract by the Contractor, and the City may withhold any payments to the Contractor for the purpose of set-off until such time as the exact amount of damages due the City from the Contractor is determined.

ARTICLE 19 – Anti-Discrimination

The Contractor, in performing the work or furnishing the services covered by this Contract, shall not discriminate against any person because of race, creed, color, national origin, age, sex, sexual orientation, disability, religion or other legally protected status. The City of Oak Ridge encourages the utilization of minority and women-owned businesses in its contracting and subcontracting projects and the Contractor is encouraged to actively solicit the participation of these businesses. The Contractor shall inform all of its subcontractors and vendors providing work or services under this Contract of this requirement and shall ensure compliance therewith.

ARTICLE 20 – Personnel

A. The Contractor represents that it has, or will, secure at the Contractor's expense, all personnel required to perform the work and services outlined in this Contract. Such personnel shall not be employees of or have any contractual relationship with the City.

B. All of the services required hereunder will be performed by the Contractor or under the Contractor's supervision, and all personnel engaged in the work shall be fully qualified and shall be authorized or permitted under state and local laws to perform such services.

ARTICLE 21 – Reports and Information

At such times and in such forms as the City may require, the Contractor shall furnish to the City such periodic reports as are requested by the City pertaining to the work and services covered by this Contract, the costs and obligations incurred or to be incurred in connection herewith, and any other matters covered by this Contract. The City can audit the Contractor's and the Contractor's subcontractors' financial records pertaining to this project.

ARTICLE 22 – Governing Law

This Contract is governed by the laws of the State of Tennessee.

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the day and year first above written, the City of Oak Ridge, by its Mayor, by authority duly given.

APPROVED AS TO FORM AND LEGALITY:

_____
City Attorney

CITY OF OAK RIDGE, TENNESSEE

_____
Mayor

(CONTRACTOR)

_____
Signature

_____
(Printed or Typed Name and Title)

Attachments: Specifications
Bid Documents
Contractor's Bid

Approved by Resolution _____

LABOR AND MATERIAL BOND

FY2014-126

Know all men by these presents

That We _____

AS PRINCIPAL, and

_____

AS SURETY are held firmly bound unto the

_____

hereinafter called the Obligee, in the penal sum of

_____ Dollars ($_____)

lawful money of the United States, for payment of which sum well and truly to be made, we bind ourselves, our heirs, personal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS: Said Principal has entered into a certain Contract with said Obligee dated _____ 20_____ (hereinafter called the Contract) for the full and complete performance of

_____ ,

which Contract and the specifications for said work shall be deemed a part hereof as fully as if set out herein.

NOW, THEREFORE, the condition of this obligation is such that if said Principal and all contractors to whom any portion of the work provided for in said Contract is sublet and all assignees of said Principal and of such contractors shall promptly make payments to the persons supplying him, or them, with labor, material, fuel or supplies, for or in the prosecution of the work provided for in said Contract, or in any amendment or extension of or addition to said Contract, and for payment of reasonable attorney's fees, incurred by the Claimant or Claimants in suits on said Bond, then the above obligation shall be void; otherwise to remain in full force and effect. Provided, however, that this Bond is subject to the following conditions and limitations:

(a) Any person, firm or corporation that has furnished labor, materials, fuel or supplies for or in the prosecution of the work provided for in said Contract shall have a direct right of action against the Principal and Surety of this Bond which right of action shall be asserted in a proceeding, instituted in the county in which the Principal does business. Such right of action shall be asserted in a proceeding instituted in the name of the Claimant or Claimants for his or their use and benefit against said Principal and Surety or either of them, (but not later than one year after the final settlement of said Contract) in which action such claim or claims shall be adjudicated and judgment rendered thereon.

Labor and Material Bond
(continued)

(b) The Principal and Surety hereby designate and appoint

Tom Beehan
(Executive Officer of the Obligee)

as the agent of each of them to receive and accept service of process or other pleading issued or filed in any proceeding instituted on this Bond and hereby consent that such service shall be the same as personal service on the Principal and/or Surety.

(c) The Surety shall not be liable hereunder for any damages or compensation recoverable under any worker's compensation or employers' liability statute.

(d) This bond is furnished in compliance with Tennessee Code Annotated Section 12-4-201 et seq.

In Witness whereof the parties hereto have executed this agreement on the day and date first above written in two counterparts, each of which shall without proof or accounting for the other counterpart, be deemed an original contract.

SIGNED, SEALED AND DELIVERED this _____ day of _____, 20_____.

Attest:_____ By:_____(Seal)
Principal

Attest:_____ By:_____(Seal)

COMPLETION AND PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: FY2014-126

THAT _____
(Name and address of legal title of Contractor)

as Principal, hereinafter called Contractor, and _____
SURETY, hereinafter called Surety, and held and firmly bound unto the City of Oak Ridge, as Obligee, in the amount of _____ Dollars ($_____)

for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____, 20_____
entered into a Contract with the City of Oak Ridge for

_____ in accordance with the specifications and approved amendments, which Contract is by reference made a part hereof, including all the obligations thereunder, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of this obligation is such that, if Contractor shall promptly and faithfully perform said Contract, including all the obligations thereunder, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

Whenever Contractor shall be, and declared by City to be, in default under the Contract or any part thereof, the City having performed the City's obligation thereunder, the Surety may promptly remedy the default, or shall promptly at the City's option:

(1) Complete the Contract in accordance with its terms and conditions; OR

(2) Obtain a bid or bids for submission to the City for completing the Contract in accordance with the terms and conditions, and upon determination by Owner and Surety of lowest responsible bidder, arrange for a contract between such bidder and the City and make available as work progresses (even though there shall be a default or a succession of defaults under the Contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion or any obligations thereunder.

Any suit under this bond must be instituted before the expiration of two years from the date on which final payment under the Contract falls due.

SIGNED AND SEALED THIS _____ DAY OF _____ A.D., 20_____
IN THE PRESENCE OF:

_____	By_____
Witness	Principal (Seal)
_____	By_____
Witness	Surety (Seal)

SPECIFICATIONS

PROJECT: STREET MILLING AND RESURFACING

SECTION 1.0 SCOPE OF WORK

A list of streets proposed to be resurfaced under this contract is enclosed in Section 15.0, Appendix titled, Milling & Paving Schedule; however, the final list will be issued after review of unit prices with work to be completed as specified in Section 11.0, Work Schedule.

The selected Contractor shall furnish all labor, materials, supplies, tools, equipment and other incidentals necessary to mill or remove existing asphalt pavement and install a new overlay asphalt surface. All work shall be completed as specified in Section 15.0, Appendix titled, Milling & Paving Schedule per TDOT specifications, Sections 411, 407, 903 and 904. The Contractor shall have the option of using new virgin asphalt mix or an 80/20 asphalt mix comprised of at least 80 percent new virgin asphalt mix and no greater than 20 percent recycled asphalt pavement. The Contractor's vendor(s) whose materials are approved for use by the Public Works Director on Oak Ridge city streets shall supply all new materials. The proposed asphalt mix design shall allow for a proper overlay installation, which will result in a uniformly compacted depth as specified in the Milling & Pavement Schedule in Section 15.0, Appendix. A copy of the approved fine Graded E-Mix Design for this project is enclosed in Section 15.0, Appendix, approved Graded E-Mix Design.

The selected Contractor may be required to furnish all labor, materials, supplies, tools, equipment and other incidentals necessary to provide temporary pavement center line markings on intermediate layers of pavement at locations where the City feels that, in the interest of public safety, pavement markings must be replaced at the end of each days work. These markings shall consist of either reflective tape or reflectorized paint installed to permanent standards.

The Contractor may be required to provide permanent reflectorized paint center line pavement markings and/or specialized pavement markings at the conclusion of the project similar to existing markings.

If these services are required, the locations will be specified in the paving schedule or the contractor will be giving instructions by the City's on-site representative during construction. The number of feet of paint or thermoplastic stripping and any pavement markings will be included in the bid proposal.

1.1 STREETS TO BE CONSIDERED IN THIS PROJECT

Streets proposed to be included in this project will be indicated on the project schedule. A final list will be provided to the Contractor at least 20 days prior to commencement work. The lengths and widths indicated were derived from City field inspections and maps; however, their accuracy shall not be guaranteed. All bidders are urged to inspect and measure the streets prior to completing the Bid Proposal Form. Unless otherwise approved or revised by the City, compensation shall be based on the unit quantities indicated on the Bid Proposal Form.

1.2 DELETION OR ADDITION OF QUANTITIES FOR STREETS OR PARKING LOTS

Funding for this project is established by the City of Oak Ridge annual budget. After all bids have been opened and inspected by the City, it may be necessary for the City to delete or add quantities, based on the Contractor's unit prices bid, in order to meet budgetary limitations. The selected Contractor will be advised if such steps are necessary.

1.3 PARKING LOTS TO BE PAVED (IF APPLICABLE)

Any city-owned parking lots to be paved will be indicated in the Milling & Pavement Schedule, Specifications, Section 15.0, Appendix. City-owned parking lots shall be paved at the depth specified and compensated at the square yard unit price.

SECTION 2.0 PREPARATORY WORK

2.1 SURFACE COURSE MIX DESIGN APPROVAL

The proposed final mix design of the Type "D", "E" or "Fine Graded Grade E" surface course shall be submitted to the City for approval with the Contractor's sealed bid. The City reserves the right to require the Contractor to alter the proposed mix design.

2.2 MILLING OF EXISTING ASPHALT

Milling of existing asphalt shall be performed as indicated in Section 15.0, Appendix, on the Milling & Pavement Schedule. It is the intent of the schedule to allow for the new overlay to be level with the top front edge of the curb apron on the streets, which have concrete curb and gutter.

2.2.1 Milling at Intersections and Side Streets

Milling shall be performed at a minimum width of four feet at all intersections, pavement ends and driveways (if needed) to allow for a smooth, uniform and level transition from the new pavement to adjoining older pavements. All transitions from new to existing asphalt surfaces shall meet City approval. This milling shall be considered incidental. Compensation for intersection milling shall be included in the total unit cost of the hot-mix installation.

2.2.2 Milling around Utility Appurtenances

As necessary and as possible, the City shall lower valve boxes and manhole covers to allow milling machines to pass over them. If the City is unable to lower the valve boxes and manhole covers, the Contractor shall mill around them.

2.2.3 Disposal of Milling Materials

Unless otherwise advised by the City, the milling material shall become the property of the Contractor.

2.3 STREET AND/OR PARKING LOT CLEANING AND PREPARATION

Prior to the installation of the tack coat for the new overlay, the pavement shall be cleaned of all loose materials by use of power brooms or other means where necessary, including hand brooms. The City shall inspect and approve the cleaned pavement condition prior to the Contractor installing the tack coat. Loose material shall become the property of the contractor and shall be removed from the site. The material shall not be allowed to pile up in or be disposed of in adjacent yards.

SECTION 3.0 TACK COAT

The Contractor shall submit for approval the type of tack coat and application rate to the City for approval at least seven days prior to construction.

3.1 APPLICATION OF TACK COAT

The tack coat shall be applied at an approximate rate of 0.10 gallon per square yard or at a rate otherwise approved by the City. After the tack coat has been applied, sufficient time shall be allowed for the separation of water and asphalt before the overlay surface is installed.

3.1.1 The tack coat shall be applied only to the area that will be paved that day and in advance of the paving machine.

3.1.2. Proper barricades and traffic control shall be used to prevent traffic from passing through the tack-coated area.

3.2 DAMAGE TO PRIVATE PROPERTY

The Contractor shall be responsible for any damage to private property caused by his/her negligence or his/her sub-contractor's negligence in preventing traffic from entering areas where tacking has been applied.

3.3 COMPENSATION FOR TRACK COAT

Compensation for tack coat shall be included in the total unit cost of the hot-mix installation.

SECTION 4.0 INSTALLATION OF HOT-MIX ASPHALT OVERLAY

The overlay operation shall follow general Tennessee Department of Transportation (TDOT) standards and any City standards as herein specified. Any deviation from these standards must have prior approval from the Public Works Director or his designee.

4.1 TEMPERATURE OF ASPHALT MIX

The asphalt mix shall be applied at a minimum temperature of 225^0 F. Asphalt not meeting this requirement will be rejected by the City Inspector at no cost to the City. Asphalt installed by the Contractor, which does not meet the temperature requirements, shall be removed and replaced by the Contractor at their expense.

4.2 WEATHER CONDITIONS

The Contractor shall halt overlay operations in the event of rain and/or as directed by the City Inspector. **Existing pavement must be dry prior to receiving the overlay**. The Contractor shall be responsible for the cost of removing and replacing any hot-mix placed on a wet surface that fails to adhere to the existing surface. The pavement surface or air temperature shall be at least 50^0 F during the overlay operation.

4.3 SPREADING OF SURFACE COURSE

4.3.1 The asphalt shall be spread by the paver at a thickness which will allow a final compacted depth as indicated for each street in Appendix 15.0, Appendix, Milling & Paving Schedule.

4.3.2 The asphalt shall be installed in a manner which will avoid excessive separation of aggregate. The City shall have the right to determine what is excessive and to require the Contractor to make proper corrective actions, including removal and replacement of the defective section of overlay at the Contractor's expense. Prior to the City's final approval of the work project, **the City reserves the right to require the Contractor to correct or replace any work, which the City claims does not meet specifications.**

4.3.3 Where an overlay is placed onto a recycled surface, it is the intention of this contract that it be installed immediately following the recycling operation and before the recycled surface temperature falls below 225^0 F., thereby aiding cohesion between the recycled surface and new overlay mix and eliminating the need for a tack coat. In the event where this is not possible, the Contractor shall apply a tack coat per the specifications at no additional cost to the City.

4.4 COMPACTION

Compaction shall be performed by use of a combination of equipment as specified in TDOT Subsection 407.07 or which has otherwise had prior approval of the City. Proper roller speeds and patterns shall be used to prevent irregularities in the finished pavement surface. The Contractor at their sole cost shall correct any irregularities in the pavement surface objectionable to the City.

4.5 PAVEMENT SAMPLES

4.5.1 As directed by the City, the Contractor shall cut core samples on 500 foot intervals from the compacted pavement for inspection and testing. Samples shall be cut with a core drill and shall have a surface area of at least 10 square inches or 3 inches in diameter and a depth as specified by the City Inspector in the field. Compensation for providing these samples to the City shall be absorbed by the Contractor in the overall cost of the project.

4.5.2 Holes resulting from the sampling shall be filled with new asphalt mix and compacted to the same height as the surrounding pavement.

4.6 MIX-DESIGN

The mix-design of hot-mix asphalt used on this project shall be as indicated in Section 15.0, Appendix, Milling & Pavement Schedule. Any deviation from this design shall not be allowed without a prior written request from the Contractor and approval of the Public Works Director or his designee. As required by the City, the Contractor shall provide laboratory test analysis of the mix being used. All laboratories and their Lab Technicians must be TDOT approved unless otherwise specified by the City.

SECTION 5.0 EQUIPMENT

The Contractor shall submit with their bid a list of all equipment proposed for use on this project upon request. All equipment proposed for use shall be approved by the Public Works Director or his designee a minimum of one week prior to the commencement of construction.

SECTION 6.0 INSTALLATION OF CONCRETE

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SECTION 7.0 INSTALLATION OF SIDEWALKS

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SECTION 8.0 STREET CENTERLINE STRIPING & MARKING

The street centerline striping and pavement markings shall conform to the specifications in the latest revision of the Tennessee Department of Transportation Bureau of Highways Nashville Standard Specifications for Road and Bridge Construction, Section 716-Pavement Markings. The application shall be in reasonably close conformity to the lines, dimensions, patterns locations and details shown on plans or absent project plans the lines shall be replaced in the same location and pattern as previously existed unless otherwise instructed by the Public Works Director or his designee.

Material used in this construction shall meet the requirements of the following subsection of these specifications:

- Paint Subsection 910.01-02
- Thermoplastic Pavement Markings Subsection 918.23
- Preformed plastic markings will not be allowed unless written permission is obtained from the Public Works Director or his designee.

Construction Requirements

- Paint shall conform to the Subsection 716.06 and Thermoplastic Pavement marking shall conform to Subsection 716.03. If approval of preformed plastic pavements is requested and granted they shall be applied as specified in Subsection 716.05 and the material used shall conform to Subsection 918.08.

Please Note: After resurfacing ORAU Way, temporary pavement marking shall be applied permanent marking is not available. This street cannot be without pavement marking overnight.

SECTION 9.0 SAFETY AND TRAFFIC CONTROL

The contractor shall be responsible for providing proper construction signing, flagging, and traffic control for their portion of the work and shall do so in a manner that allows for the safe and efficient passage of motorists through the work zone. A work zone shall be established per the latest edition of the Manual on Uniform Traffic Control Device.

SECTION 10.0 DAMAGE TO PRIVATE PROPERTY AND PERSONAL INJURY

The Contractor shall be responsible and liable for all damage to private and public property and/or injuries to any person(s) that occurs due to their negligence within any area of the work zone or otherwise caused by their work.

SECTION 11.0 WORK SCHEDULE

Days and Hours of Work - Unless otherwise approved by the Public Works Director or his designee, the Contractor shall conduct all work between the hours of 7:30 A.M. and 6:00 P.M, Monday through Friday. Work on holidays or weekends shall not be allowed without prior approval of the Public Works Director or his designee.

Any work in school zones shall cease when children are arriving or departing the area unless that work is coordinated with school officials and the Public Works Director or his designee and adequate additional signing and flag men are provided to ensure safe and efficient traffic flow.

Any work at locations where high peak hour traffic can be expected, such as but not limited to, shift change at plants or businesses employing a large number of persons, shall cease during peak hours unless work is coordinated with plant/business officials and the Public Works Director or his designee. Adequate additional signing and flag men are to be provided to ensure safe and efficient traffic flow.

City Public Works personnel will provide notices to citizens that paving will be taking place in the area so they may remove their vehicles from work areas. In order to facilitate this, the Contractor shall provide a list of streets where he/she will be working each day far enough in advance of work beginning that at least one days notice can be provided to affected persons. The Contractor shall not be allowed to deviate from the schedule for their convenience. As stated in section 2.2.2 the City will adjust the elevation of valve boxes and manhole lids as necessary and possible. In order to minimize the time between completion of these operations by City personnel and commencement of resurfacing operations the contractor shall provide with his or her bid the approximate date resurfacing operation are expected to begin.

SECTION 12.0 CLEAN UP

The Contractor shall be responsible for the daily clean up and removal of all construction debris, excess asphalt mix, other spoils, etc. from all work areas.

SECTION 13.0 COMPENSATION

Compensation ***for milling*** shall be paid at the square yard unit of whole width milling or lineal foot unit for wedge milling as indicated on the Bid Proposal Form.

Compensation for ***tack coat*, *asphalt surface mix, and all other incidentals*** shall be included in and paid at the unit price per square yard of overlay as indicated on the bid sheet.

Compensation for ***Leveling Mix*** shall be pre ton.

Compensation for ***Shoulder Stone*** shall be per ton.

Compensation for ***Pavement Striping*** shall be per linear foot.

Compensation for ***Pavement Markings*** shall be each.

All compensation shall be based on the quantities of work indicated on the paving schedule unless the City has revised the quantity. The Contractor shall notify the City if discrepancies in quantities are detected. Likewise, the City shall notify the Contractor if the City revises work quantities.

The quantities indicated on the Bid Proposal Form reflect the average quantity intended for the current year of the project and are for the primary purpose of awarding the bid. Actual year-to-year quantities may vary depending on that year's scheduled work and available funding. The City reserves the right to increase or decrease quantities in order to meet budgetary limitations.

SECTION 14.0 CONTRACT RENEWAL

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SECTION 15.0 APPENDIX

MILLING & PAVING SCHEDULE

MILLING DRAWING

APPROVED FINE GRADED E-MIX DESIGN

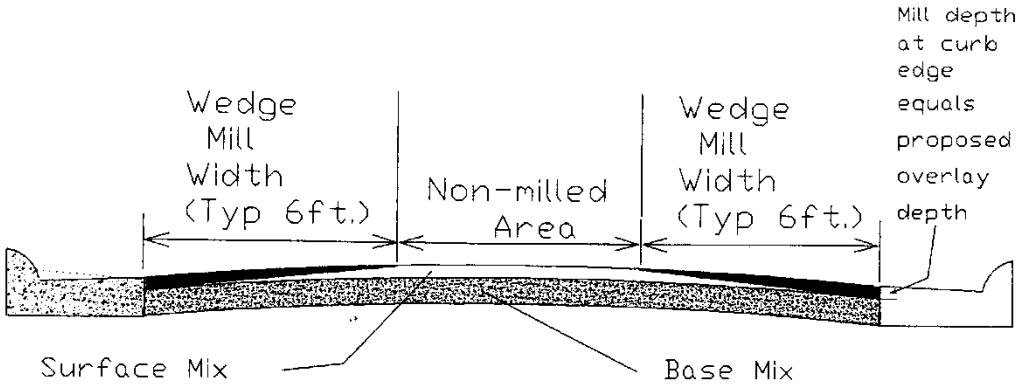
MILLING & PAVING SCHEDULE
Streets Proposed for Resurfacing

Strategy Example: A/075 = .75" WM at curb +.75OL
Milling Drawing (please see attached)

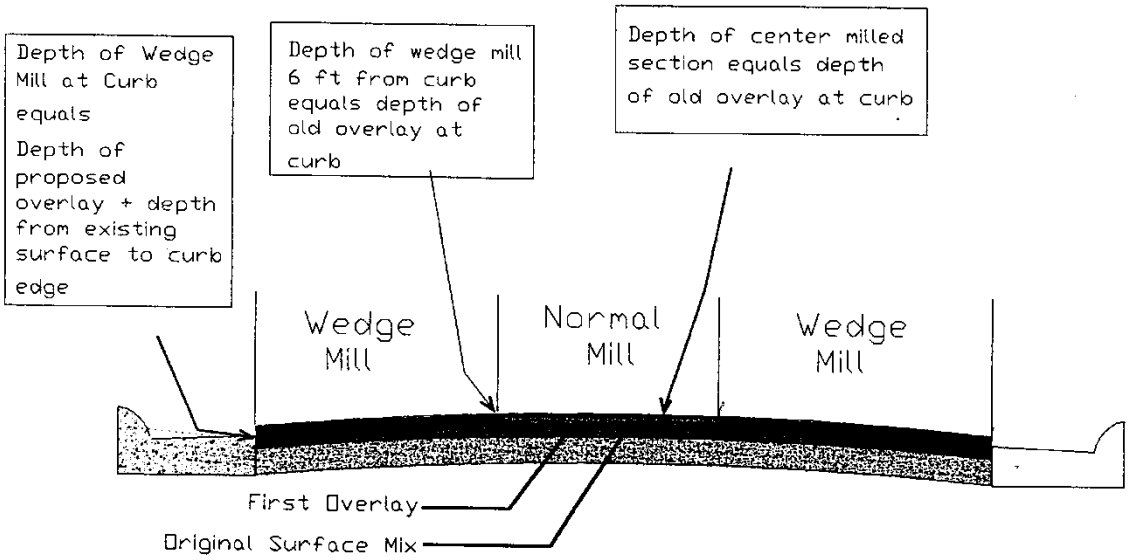
NAME	FROM STREET	TO STREET	WIDTH	LENGTH (Mi.)	LENGTH (L.F.)	Sq. Yds.	STRATEGY (Type Mill/OL Dept)	DEPTH (in.) Overlay
BELGRADE RD. 2 east	CAIRO LN.	WAREHOUSE RD.	22	0.263	1389	3394	NA/2.0"	2" TDOT E
BRIARCLIFF AVE. 2	DANBURY DR.	S. COLUMBIA DR.	28	0.234	1236	3844	G/1.5"	1.5" TDOT E
BRIARCLIFF AVE. 3	S. COLUMBIA DR.	EMORY VALLEY RD.	28	0.702	3707	11532	G/1.5"	1.5" TDOT E
POTOMAC CIR.	PURDUE AVE. S.	PURDUE AVE. S.	25	0.199	1051	2919	D/1.0	1.0" FINE E
ROBERTSVILLE RD. 4	MISSISSIPPI AVE.	SALEM RD.	28	0.078	412	1281	G/1.5"	1.5" TDOT E
ROBERTSVILLE RD. 5	SALEM RD.	SENECA RD.	28	0.254	1341.1	4,172	G/1.5"	1.5" TDOT E
ROBERTSVILLE RD. 6	SENECA RD.	LOUISIANA AVE.	28	0.114	602	1873	G/1.5"	1.5" TDOT E
BALBOA CIR.	BAYLOR DR.	BAYLOR DR.	28	0.473	2497	7770	B/1.0"	1.0" FINE E
BAYLOR DR.	EMORY VALLEY RD.	BALBOA CIR.	28	0.222	1172	3647	B/1.0"	1.0" FINE E
AMANDA DR. 2	ADELPHI RD.	DEAD END	22	0.167	882	2155	B/1.0"	1.0" FINE E
NORTHWESTERN AVE.	RUTGERS AVE.	GETTYSBURG AVE.	25	0.284	1500	4165	D/1.0"	1.0" FINE E
ARROWOOD RD. EAST	ARKANSAS AVE.	ATHENS RD.	25	0.31	1637	4547	D/1.0"	1.0" FINE E
ARROWOOD RD. WEST	CALIFORNIA AVE.	ARKANSAS AVE.	25	0.391	2064	5735	D/1.0"	1.0" FINE E

NAME	FROM STREET	TO STREET	WIDTH	LENGTH (Mi.)	LENGTH (L.F.)	Sq. Yds.	STRATEGY (Type Mill/OL Dept)	DEPTH (in.) Overlay
ALDER LN.	ARROWOOD RD.	DEAD END	25	0.122	644	1789	D/1.0"	1.0" FINE E
BALTIMORE DR. 1	EMORY VALLEY RD.	BAYLOR DR.	28	0.308	1626	5059	F/1.5"	1.0 FINE E
PHILLIPS LN.	PURDUE AVE. S.	DEAD END	25	0.069	364	1012	B/1.0"	1.0 FINE E
DANIEL LN.	DAYTON RD.	DEAD END	28	0.104	549	1708	B/1.0"	1.0 FINE E
ENDICOTT LN.	EAST DRIVE	SCENIC DR.	22	0.074	391	955	B/1.0"	1.0 FINE E
SCENIC DR.	ENDICOTT LN.	BRIARWOOD DR.	18	0.426	2249	4499	B/1.0"	1.0 FINE E
ORAU WAY	OAK RIDGE TPK.	BADGER AVE.	25	0.112	591	1643	F/1.0"	1.0 FINE E
ORAU WAY	BADGER ROAD	S. ILLINOIS AVE.	65	0.159	840	6063	F/1.0"	1.0 FINE E
WAKEFIELD ROAD	WADSWORTH CIR.	WAKEMAN LN.	25	0.149	787	2185	B/1.0"	1.0 FINE E
WAKEMAN LANE	WADSWORTH CIR.	DEAD END	25	0.05	264	733	NA/1.0"	1.0 FINE E
WAKEMAN LANE	WAKEFIELD ROAD	WADSWORTH CIR.	25	0.11	581	1613	B/1.0"	1.0 FINE E
FAIRBANKS RD. 2	WAREHOUSE RD.	EMORY VALLEY RD.	25	0.634	3348	9299	NA/1.0"	1.0 FINE E
FLORIDA AVE.	OUTER DRIVE	TENNESSEE AVE.	25	0.591	3120	8668	D/1.5"	1.5" TDOT D
ROBERTSVILLE RD.	EAST MELBOURNE	BRADLEY AVE.	28	0.08	422	1314	B/1.0"	1.0" Fine E
RALEIGH RD.	ROBERTSVILLE RD.	ROBERTSVILLE RD.	28	0.31	1637	5092	D/1.0:	1.0" Fine E

6.99 Miles



Typical Wedge Milling Where Pavement is level with the front edge of the valley curb



Wedge Milling Technique when roadway has an existing older overlay raised above the curb edge

City of Oak Ridge
Department of Public Works

Street Resurfacing

APPROVED FINE GRADED E-MIX DESIGN

FOR HOT-MIX ASPHALT SURFACE COURSE OVERLAYS
OF 0.75 TO 1.25 INCHES IN THICKNESS
(85 lbs/SY – 140 lbs. SY)

Mix Including Bitumen	
Screenings 3/8" to #200	= 61.43%
Mfg. Sand 3/8" to #200	= 33.07%
Asphalt Cement (AC-20)	= 5.4-6.0%

DESIRED MIX DESIGN		TOLERANCE RANGE
% Passing 3/8" Sieve	= 100	100
% Passing No.4 Sieve	=93.4	88-98
% Passing No.8 Sieve	=68.9	65-73
% Passing No. 30 Sieve	=26.3	22-30
% Passing No. 50 Sieve	=20.1	16-24
% Passing No. 100 Sieve	=10.3	8-12
% Passing No. 200 Sieve	= 8.5	6-10