

2016

Pavement & Highway
Improvement Project

Bid Documents and
Technical Specifications

Bid 16-13

INFORMATION FOR BIDDERS

The City of Rochester, New Hampshire, (OWNER) will accept sealed bids at the Business Office, 31 Wakefield Street, Rochester, New Hampshire until 2:15 p.m. (local time) on September 17, 2015, at which time the acceptance of bids will be closed. All bids received will be opened and read aloud at 2:30 p.m. The envelopes containing the bids must be sealed and designated as CITY OF ROCHESTER 2016 PAVEMENT & HIGHWAY IMPROVEMENT PROJECT – Bid 16-13. The bid opening shall be public and open to all parties.

The terms and conditions of the contract are found within these documents.

The Contract Documents request proposals for a General Contractor individual contract. The intent is to allow the OWNER to evaluate bids and make decisions in the best interest of the community. It shall be assumed by both parties that the actual quantities will differ from the estimated bid form and that items within the contract are required to perform a wide range of applications that may or not be performed in the specific locations referenced within this particular document.

All bids must be submitted with a Bid Bond in the amount of ten percent (10%) of the Bid Price executed between the Bidder and a Surety Company.

Bidders shall examine and become thoroughly familiar with the Contract Documents and inform themselves of the difficulties attending the execution of the work prior to the submission of their Proposals. The CONTRACTOR shall give his full attention to the Bid Documents and Technical Specifications of Contract Documents contained herein.

It is the duty of the OWNER not to award this Contract to any Bidder who does not furnish evidence satisfactory to the OWNER that the Bidder has the ability, skill, integrity and experience in this class of work and has sufficient capital to enable the successful and complete execution of this contract within the specified time.

In determining the skill, ability, and integrity of the responsible and eligible Bidders the following elements will be considered: Whether the Bidder has (a) previously defaulted on, failed to perform properly, or failed to complete on time contracts of similar nature; (b) habitually and without just cause neglected payment for material or to employees; (c) a permanent place of business; (d) adequate plant and equipment to do the Work properly; (e) a suitable financial status to meet the obligations incident to the Work; (f) appropriate technical experience; (g) labor force that can work in harmony with all other elements of labor employed; (h) sufficient bonding capacity; and, (i) adequate superintendence.

The OWNER reserves the right to postpone the date for presentation and opening of Proposals and will give notice of such postponement to each prospective Bidder.

The successful Bidder will be required to furnish the necessary Bonds and Insurance Certificates.

In the event of discrepancies between the price totals quoted in the Proposal and the unit price figures, the unit price figures shall control. The price is to include the furnishing of all material, plant, equipment, tools, labor, and other facilities required for the completion of the work except as may be otherwise expressly provided within these Contract Documents.

The OWNER reserves the right to reject any or all Proposals for any reason, or to accept any bid which it deems to be in its best interest. Any Proposal, which is incomplete, obscure, or irregular, may be rejected; any Proposal having erasures may be rejected; any Proposal that omits a bid on any one or more items may be rejected; and any Proposal accompanied by an insufficient or irregular certified check or Bid Bond may be rejected. The use of unbalanced bids is prohibited and will be rejected.

The Bidder may not modify a Proposal once submitted. However, at any time he shall be able to withdraw the proposal and provide a new sealed proposal for submittal.

Within thirty (30) days after opening the Proposals the OWNER will prepare a Notice of Intent to Award signed by a duly authorized representative of the OWNER. This Notice of Intent to Award shall bind the successful Bidder to execute the Contract approval.

Notice of Approval and formal acceptance of the Proposal will be made in writing to the successful Bidder. A duly authorized representative of the OWNER will sign the Notice of Approval.

The rights and obligations provided for in the Contract shall become effective and binding upon the Parties only with its formal execution by the OWNER.

The successful Bidder(s) shall execute a Performance Bond in the amount of one hundred percent (100%) of the Bid Price. The Bidder, OWNER and a Surety Company shall execute Bond.

The successful bidder shall commence work under this contract on or before a date to be specified in the "Notice to Proceed".

The following projects are considered for the fiscal year 2016 and approximate quantities. The schedule does not commit the OWNER to perform the work described or to limit the work to only those projects described below. The OWNER reserves the right to change project scopes.

1. Cold Plane and Overlay

Winter Street	9,500 S.Y.
Ledgeview Road	15,000 S.Y.

2. Reclaim and Pave

Gear Road	25,000	S.Y.
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BID PROPOSAL

Proposal of

(Hereinafter called "BIDDER"), organized and existing under the laws of the State of _____

Doing business as

Corporation, Partnership, or an Individual

To the City of Rochester (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, bidder hereby proposes to perform all WORK for the 2016 – Pavement & Highway Improvement Project 16-13, in strict accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the prices stated below.

By submission of this bid, the bidder certifies that his bid has been arrived at independently.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in the NOTICE TO PROCEED and fully complete according an agreed upon schedule.

Bidder hereby agrees to meet the following schedule: Final completion of Winter Street prior to November 15, 2015 and Ledge view Drive and Gear Road completed prior to June 15, 2016 or be subject to the penalties within.

Any Bidder who's Proposal shall be accepted will be required to execute the necessary Contract within ten (10) business days after receiving the Notice of Intent to Award. Failure or neglect to do so shall constitute a breach of the agreement affected by the acceptance of the Proposal.

The OWNER will retain the amount of the certified check or Bid Bond accompanying the Proposal of such Bidder as liquidated damages for such breach. In the event any Bidder whose Proposal shall be accepted shall fail or refuse to execute the Contract herein provided, the OWNER may, at his option, determine that such Bidder has abandoned the Contract and thereupon his Proposal and the acceptance thereof shall be null and void .

BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING ADDENDA:

BIDDER agrees to perform all the work described in the CONTRACT DOCUMENTS for the following unit prices or lump sum.

BID SCHEDULE

ITEM NO.	ESTIMATE QUANTITY	ITEM DESCRIPTION & UNIT PRICE	ITEM PRICE (in numerals)
<u>1</u>	<u>25,000 SY</u>	<u>ASPHALT RECLAMATION</u>	
		\$_____ PER SY	\$_____
<u>2</u>	<u>24,500 SY</u>	<u>COLD PLANING</u>	
		\$_____ PER SY	\$_____
<u>3</u>	<u>500 TONS</u>	<u>1 – 1/2” STONE</u>	
		\$_____ PER TON	\$_____
<u>4</u>	<u>7,500 TONS</u>	<u>BITUMINIOUS CONCRETE</u>	
		\$_____ PER TON	\$_____
<u>5</u>	<u>25,000 SY</u>	<u>BASE PREPARATION, COMPACTION AND FINE GRADING</u>	
		\$_____ PER SY	\$_____
<u>6</u>	<u>500 TONS</u>	<u>HAND PAVING</u>	
		\$_____ PER TON	\$_____
<u>7</u>	<u>50,000 LF</u>	<u>PAVEMENT STRIPING</u>	
		\$_____ PER LF	\$_____
<u>8</u>	<u>500 SF</u>	<u>PAVEMENT MARKINGS</u>	
		\$_____ PER SY	\$_____

<u>9</u>	<u>750 TON</u>	<u>GRAVEL SHOULDERS</u>	
		\$_____ PER TON	\$_____
<u>10</u>	<u>2,250 LF</u>	<u>SAW CUTTING</u>	
		\$_____ PER LF	\$_____
<u>11</u>	<u>3 EA</u>	<u>MOBILIZATION</u>	
		\$_____ PER EA	\$_____
<u>12</u>	<u>40 HRS</u>	<u>OFFICERS</u>	
		<u>(\$ 55.00) per HR</u>	<u>\$2,2000</u>
			(TO BE CARRIED)
<u>13</u>	<u>3 EA</u>	<u>TRAFFIC CONTROL</u>	
		\$_____ PER EA	\$_____
<u>14</u>	<u>30 EA</u>	<u>REMOVE & RESET CASTINGS</u>	
		\$_____ PER EA	\$_____
<u>15</u>	<u>10,000 GAL</u>	<u>CALCIUM CHLORIDE</u>	
		\$_____ PER GAL	\$_____
<u>16</u>	<u>20 EA</u>	<u>MAIL BOX REMOVE / RESET</u>	\$_____
		\$_____ PER EA	

<u>17</u>	<u>3,000 SY</u>	<u>LOAM AND SEED</u>	
		\$ _____ PER SY	\$ _____
<u>18</u>	<u>600 LF</u>	<u>INCIDENTAL CONSTRUCTION</u>	
		\$ _____ PER LF	\$ _____
<u>19</u>	<u>15 FT</u>	<u>REBUILD CONCRETE / BRICK STRUCTURES</u>	
		\$ _____ PER LF	\$ _____
<u>20</u>	<u>100 LF</u>	<u>CURB RE-SET</u>	
		\$ _____ PER LF	\$ _____
<u>21</u>	<u>1 U / TON</u>	<u>ESCALATION</u>	
		\$ <u>ALLOWANCE</u> / PER TON	\$ <u>30,000</u>
			(TO BE CARRIED)
		The base price of Asphalt Cement for this Contract is \$ <u>490.00/ English Ton.</u>	
<u>22</u>	<u>10 EA</u>	<u>24" PAMREX MH CASTINGS</u>	
		\$ _____ PER LF	\$ _____
<u>23</u>	<u>8 EA</u>	<u>32" PAMREX CASTINGS</u>	
		\$ _____ PER LF	\$ _____
<u>24</u>	<u>20 EA</u>	<u>REXUS FRAMES & GRATES</u>	
		\$ _____ PER LF	\$ _____

<u>25</u>	<u>4 EA</u>	<u>DROP INLETS (DI)</u>	
		\$_____PER EA	\$_____
<u>26</u>	<u>1,000 SY</u>	<u>ASPHALT TRIMMING</u>	
		\$_____PER SY	\$_____

Total Bid: The sum of (in words)

(In figures) \$ _____.

(Amounts are to be shown in both words and figures. In case of discrepancy, the amounts shown in figures will govern.)

The above unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc. to cover the finished work of the several kinds called for.

The Bidder agrees that this bid shall be good and may not be withdrawn, for a period of 60 calendar days after the scheduled closing time for receiving bids.

Upon written notice of the acceptance of this bid, bidder will execute the formal contract attached within 10 days and deliver a surety bond of bonds as required by the general Conditions. The bid security attached in the sum of _____ (\$ _____) is to become the property of the OWNER in the event the contract and bond are not executed within the time set forth, as liquidated damages for the delay and the additional expense to the OWNER caused thereby.

SUBMITTED ON _____, 20__

Name of CONTRACTOR _____

Address:

Telephone: _____ Fax No. _____

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of CONTRACTOR)

(Address of CONTRACTOR)

A _____, hereinafter called

Principal

(Corporation, Partnership, or individual)

And

(Name of Surety)

(Address of Surety)

Hereinafter called Surety, are held and firmly bound unto the City of Rochester, NH, 31 Wakefield St., Rochester, NH 03867 hereinafter called OWNER, in the penal sum of

_____ Dollars, \$(_____)

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

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____ 2_____, a copy of which is hereto attached and made a part hereof for the construction of 2016 Pavement & Highway Improvement Project.

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed hereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of

time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts
(Number)

Each one of which shall be deemed an original, this _____ day of
_____ 2_____.

ATTEST:

(Principal)

(Principal Secretary)

BY:

(SEAL) _____

(Address)

(Witness as to Principal)

(Address)

(Surety)

By: _____
(Attorney-in-fact)

ATTEST:

(Witness as to Surety)

(Address)

(Address)

NOTE: Date of BOND must not be prior to date of Contract.
If Principal is a Partnership, all partners should execute BOND.

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

PAYMENT BOND

(In accordance with NH R.S.A., Chapter 447)

KNOW ALL MEN BY THESE PRESENTS: that

(Name of CONTRACTOR)

(Address of CONTRACTOR)

A _____, hereinafter called Principal
(Corporation, Partnership, or Individual)
And

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto the City of Rochester,
New Hampshire, 31 Wakefield St., Rochester, NH 03867 hereinafter called
OWNER, in the penal sum of

_____ Dollars, \$(_____)
in lawful money of the United States, for the payment of which sum well and truly
to be made, we bind ourselves, successors, and assigns, jointly and severally,
firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal
entered into a certain contract with the OWNER, dated the _____
day of _____ 2_____, a copy of which is hereto attached and made a part
hereof 2016 Pavement & Highway Improvement Project Contract 16-13.

NOW, THEREFORE, if the Principal shall promptly make payment to any
persons, firms, SUBCONTRACTORS, and corporations having any claim for
labor performed or furnished, for equipment hired, including trucks, for material
used and for fuels, lubricants, power, tools, hardware and supplies purchased by
the Principal and used in carrying out the contract, and for labor and parts
furnished upon the order of the Principal for the repair of equipment used in
carrying out the contract, in accordance with the provisions of RSA 447:15, 16,
17 and 18, and satisfy all claims and demands incurred under such contract,
then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the notice required under this BOND to obtain
benefits under this obligation by any person, firm, or corporation having any claim
for labor performed, materials, machinery, tools, equipment or supplies, shall
extend for a period of ninety (90) days after completion and acceptance of the
work as provided in said contract with the OWNER. Such notice shall consist of

a statement of the claim and must be filed in the office of the Clerk of the Superior Court of the County within which the contract shall be principally performed. The Clerk of the Superior Court is required to send a copy of the statement of claim by mail to the Principal and Surety hereunder. Any person, firm, or corporation shall within one (1) year after filing such claim file a petition in the Superior Court for the County within which the contract shall be principally performed to enforce the claim in accordance with the provisions and requirements of RSA 447:18.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the WORK to be performed hereunder or the SPECIFICATIONS accompanying the same shall in any way affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the Principal shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts
(Number)

Each one of which shall be deemed an original dated this the _____ day of _____ 2____.

ATTEST:

(Principal Secretary)

(Principal)

(SEAL)

By: _____
(Name and Title)

(Address)

(Witness as to Principal)

(Address)

(Surety)

ATTEST:

By:_____

(Attorney-in-fact)

(Witness as to Surety)

(Address)

NOTE: Date of BOND must not be prior to date of Contract. If Principal is a Partnership, all partners should execute BOND.

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

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned

As Principal, and

as Surety, are hereby held and firmly bound unto The City of Rochester as OWNER in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 20_____.

The Condition of the above obligation is such that whereas the Principal has submitted to The City of Rochester a certain BID attached hereto and hereby made a part hereof to enter into a contract in writing, for the 2016 Pavement & Highway Improvement Project 16-13.

NOW, THEREFORE,

(a) If said BID shall be rejected, or

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

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such BID; and said Surety does hereby waive notice of any such extension.

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

Principal

Surety

By: _____

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

AGREEMENT

THIS AGREEMENT, made this _____ day of _____,
2___ by and between The City of Rochester, NH hereinafter called "OWNER"
and

doing business as (an individual,) or (a partnership,) or (a corporation)
hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements
hereinafter mentioned:

1. The CONTRACTOR will commence and complete the 2016 Pavement & Highway Improvement Project 16-13, hereafter called the PROJECT, as shown in the Notice to Proceed and as specified herein.
2. The CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the PROJECT described herein.
3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS after the date of the NOTICE TO PROCEED and will complete according to the schedule herein,
4. The CONTRACTOR hereby agrees to meet the schedule, or be subject to the penalties outlined within these documents if the schedule is not adhered to.
4. The CONTRACTOR agrees to perform all of the WORK described in the CONTRACT DOCUMENTS and comply with the terms therein for the unit prices as shown in the BID schedule.
5. The term "CONTRACT DOCUMENTS" means all documents contained in the 2016 Pavement & Highway Improvement Project 16-13 dated 9/17/15 and the following addenda:

No. _____ dated _____, 2____.

No. _____ dated _____, 2____.

No. _____ dated _____, 2____.

No. _____ dated _____, 2____.

No. _____ dated _____, 2____.

No. _____ dated _____, 2____.

6. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the Contract Documents in such amounts as required by the CONTRACT DOCUMENTS.
7. The OWNER may at its sole option add more city streets to be constructed within the time frame of this contract. The OWNER consults with the CONTRACTOR to set a schedule for the added streets. The OWNER will pay for the additional work using the unit prices as bid or as agreed to under this agreement, unless otherwise provided in the General Conditions.
8. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in four (4) copies, each of which shall be deemed an original on the date first above written.

(SEAL)
ATTEST:
Name _____

Title _____

(SEAL)
Name _____

Title _____

OWNER:
FOR THE CITY OF ROCHESTER

By _____
Name

Title _____

CONTRACTOR:

By _____

Name _____

Address _____

CONTRACT DOCUMENTS AND DEFINITIONS

ARTICLE 1 - DEFINITIONS

Wherever the words defined in this article, or pronouns used in their stead, occur in this contract and specifications hereto attached, they shall have the meanings herein given.

1.1 OWNER – The word OWNER shall mean the first party, any board, officer or agent, authorized to act for the said party of the first part, in the execution of the work of this Contract.

1.2 CONTRACTOR – The word CONTRACTOR shall mean the party of the second part, designated, entering into this Contract for the performance of the Work required, or the legal representative of said party or the agent appointed for said party in the performance of the work.

1.3 Subcontractor – The word subcontractor shall mean a person, firm or corporation supplying labor or materials for work at the site of the project for, and under separate Contract agreement with the General Contractor.

1.4 ENGINEER – The word ENGINEER shall mean OWNER, either acting directly or through any authorized representatives.

1.5 Standard Specifications – Reference to “Standard Specifications” and “Standard Specifications for Road and Bridge Construction” mean the State of New Hampshire, Department of Transportation, Standard Specifications for Road and Bridge Construction, latest edition and all its amendments.

ARTICLE 2 - OBLIGATIONS AND LIABILITY

2.1 The CONTRACTOR shall complete the work to the satisfaction of the ENGINEER at the prices herein agreed upon and fixed therefore.

2.2 The CONTRACTOR shall conduct his work so as to interfere as little as possible with private business and public travel. He shall, at his own expense, wherever necessary or required, maintain light, furnish watchmen and take such precautions as may be necessary to protect life and property. The Contractor shall bear all losses resulting to him or the OWNER on account of the amount of character of the work or on the account of weather elements or other causes. The CONTRACTOR shall assume the defense of all claims of whatsoever against the contractor or the OWNER and indemnify, save harmless, and insure the OWNER, its officers or agents, against claims that may arise from injury or damage to persons, corporations or property. Claims against the contractor shall be settled in an expedient manner, proof of which shall be provided to the ENGINEER.

2.3 The OWNER disclaims any authority or responsibility for job site safety and for the safety of persons who are or are not part of the construction process. It is understood and agreed that the ENGINEER will not be responsible for compliance of safety programs, put forth by the CONTRACTOR or related OSHA regulation required to be followed by the CONTRACTOR, employees, subcontractors and agents. Job site safety shall be the responsibility of the CONTRACTOR at all times.

ARTICLE 3 - ENGINEER TO DECIDE

3.1 The ENGINEER shall in all cases determine the amount, quality, accessibility and fitness of the kinds of work and materials which are to be paid for under this contract.

3.2 Nothing in this agreement shall be construed as giving the ENGINEER the responsibility to direct construction methods, techniques, procedures or safety methods.

ARTICLE 4 - INTENTIONS OF DOCUMENTS

4.1 The ENGINEER shall make all necessary explanations as to the meaning and intention of all documents.

ARTICLE 5 - ABSENCE OF CONTRACTOR

5.1 Work shall neither commence nor proceed unless supervised by the CONTRACTOR or his duly authorized superintendent or foreman. Delays in the work due to the absence of the CONTRACTOR or his duly representative shall not constitute reason for extension of time for completion. The ENGINEER shall be notified at least 24 hours in advance for and deviation from the normal daily work schedule.

ARTICLE 6 - PARTS OF THE CONTRACT

6.1 The information for bidders, all addenda, the proposal submitted by the CONTRACTOR, the Specifications, are made parts of this contract.

ARTICLE 7 - ERRORS AND OMISSIONS

7.1 Should a discrepancy appear or any misunderstandings arise as to the import of anything contained in the interpretation and decision of the ENGINEER shall be final and binding on both parties of this contract. The CONTRACTOR shall immediately notify the ENGINEER of any known discrepancies for proper resolution.

7.2 Any corrections may be made by the ENGINEER when such correction is necessary for their fulfillment of their intention as construed by him. When the corrections add to the amount of work to be done by the CONTRACTOR,

compensation for said additional work shall be made in accordance with the provisions of the contract.

7.3 Should a Bidder find discrepancies in or omissions from the Contract Documents or are in doubt as to their meaning; the Bidder should at once notify the OWNER. In general, no answer will be given to the prospective Bidders in reply to an oral question if the question involves the equality or use of products or methods other than those specifically designated or described in the Specifications. All information given to Bidders by means other than set forth in the Contract Documents is given informally and shall not be used as the basis of a claim-against the OWNER.

7.4 Omissions, discrepancies, and questions must be submitted in writing to the OWNER thru the purchasing department at least ten (10) working days before the date for receipt of bids. If a question involves the equality or use of products or methods not specifically designated or described in the Specifications, it must be accompanied by Drawings, Specification, or other data in sufficient detail to enable the OWNER to determine the equality or suitability of the product or method. In general, the OWNER will neither approve nor disapprove particular products prior to the opening of the bids; such products will generally be considered only when offered by the CONTRACTOR for incorporation into the work after the award and signing of the Contract. The OWNER will prepare an Addenda to address all questions received and answers provided. At least three (3) working days prior to the bid opening date and time, Addenda will be sent to each of Bidder who has taken out the Contract Documents.

ARTICLE 8 – INSURANCE

8.1 Indemnification

- 8.1.1 The CONTRACTOR shall indemnify and hold harmless the OWNER against all claims, damages, losses and expenses including attorneys fees arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense is caused in whole or in part by any negligent act or omission of the CONTRACTOR or anyone directly or indirectly employed by the CONTRACTOR, whose acts may be liable, regardless of whether or not is caused in part by a party indemnified hereunder.
- 8.1.2 In any and all claims against the OWNER, or its employees by any employee of the CONTRACTOR, or anyone directly or indirectly employed the indemnification obligation under this paragraph shall not be limited in any way by a limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR under workman's compensation acts, disability benefits acts or other employee benefit acts.

8.2 Insurance

8.2.1 Workers Compensation Insurance to cover its employees and CONTRACTOR shall require all subcontractors similarly to provide workers compensation insurance as required by the State of NH for all of the subcontractors' employees. All workers compensation policies shall be endorsed with the following language: "This policy shall not be canceled without first giving thirty (30) days prior notice to the OWNER by certified mail."

8.2.2 Comprehensive general liability insurance: Personnel injury and property damage insurance for all activities of the CONTRACTOR and its subcontractors arising out of or in connection with this contract, written on a broad form comprehensive general liability basis in an amount no less than \$2,000,000 combined single limit personnel injury and property damage for each occurrence.

8.2.3 Motor Vehicle Insurance: The CONTRACTOR shall provide motor vehicle insurance to include bodily injury, property damage, uninsured motorists, and employer's non ownership coverage in an amount no less than \$500,000 combined single limit on an occurrence basis. Coverage shall also include medical payments of at least \$1,000.

8.3 The insurance provided herein is to be primary, and no insurance held or owned by the City shall be called upon to contribute to a loss.

8.4 A copy of the required policy endorsements shall be attached to each certificate submitted.

ARTICLE 9 – COMPLIANCE WITH LAWS

9.1 The CONTRACTOR at all times, himself, observe and comply with, and cause all his agents and employees to observe and comply with all such laws, ordinances, regulations, orders or decrees; and shall protect and indemnify the OWNER, its officers and agents against all claims or liability arising from or based upon violation of any such law, ordinances, regulations, orders or decrees, whether by himself or his employees.

9.2 The CONTRACTOR shall be in compliance with the U.S. Department of Transportation's Federal Motor Carrier Safety Regulations, Parts 49CFR382 and 49CFR383. The CONTRACTOR shall maintain compliance with those regulations from date of contract award to project completion contained herein. The OWNER will negotiate unit prices for the out of scope work with the CONTRACTOR and prepare a change order to the contract that outlines the work to be done, its value, and unit prices of items, not otherwise contained herein.

ARTICLE 10 – NOT TO SUBLET

10.1 The CONTRACTOR shall give his personnel attention constantly to the faithful prosecution of the work, shall keep the same under his personal control, and shall not assign by power of attorney or otherwise, nor subject the work or any part thereof, without the previous written consent of the OWNER, and shall not either legally or equitably assign any of the monies payable under this agreement or his claim thereto, unless by and with the like consent of the OWNER and surety on the Bond.

ARTICLE 11 – TIME OF BEGINNING WORK

11.1 It is the intent of this contract to have the CONTRACTOR commence work within the city on or before September 14, 2016. However, the actual commencement date will be as stated in the Notice to Proceed and all 'date certain' milestones will be agreed upon at that time.

11.2 No work shall begin on any city street before 7:00 a.m. and all daily activity shall finish before the hour of 7:00 p.m. unless prior authorization has been granted by the City.

ARTICLE 12 – DELAY BY OWNER

12.1 The OWNER may delay the beginning of the work or any part thereof, if materials or equipment to be furnished by the OWNER are not delivered. The CONTRACTOR shall have no claim for damages on account of such delay, but shall be entitled to such additional time wherein to perform and complete this contract on his part as the ENGINEER shall certify in writing to be just.

ARTICLE 13 – TIME OF COMPLETION

13.1 The rate of progress shall be such that work shall be performed and completed in accordance with the terms of this contract.

13.2 It is agreed that the rate of progress herein required has been purposely made slow enough to allow for the ordinary delays incident to construction work of this character. No extension of time will be made for ordinary delays, inclement weather and accidents, and occurrences of such will not relieve the CONTRACTOR from the necessity of maintaining the rate of progress.

13.3 If delays are caused by acts of god, acts of government or State, extra work, or contingencies clearly beyond the control or responsibilities of the CONTRACTOR, the CONTRACTOR shall be entitled to additional time wherein to perform and complete this contract on his part as the OWNER may grant, after certification thereto by the ENGINEER. The ENGINEER may also delete the work entirely due to unforeseen conditions.

13.4 The CONTRACTOR shall provide a schedule to meet the milestones depicted within this document. Changes to the schedule should only be made through written documentation. The CONTRACTOR agrees to exercise diligence in the performance of its services consistent with the agreed upon schedule, subject, however, to the generally accepted standards of care for performance of such services.

13.5 If work has begun and is stopped for any reason (including acts of god) the CONTRACTOR is required to take all necessary care to ensure the public safety at all times, (satisfactory to the OWNER), at its own expense. Failure to ensure the public safety (including maintaining reclaimed roadways) may be deemed a breach of contract.

ARTICLE 14 – NIGHT AND SUNDAY WORK

14.1 Night work is generally not to be assumed, however, may be requested by the OWNER or CONTRACTOR.

14.2 No Sunday work is permitted, except in great emergency, and to such extent that may be necessary.

ARTICLE 15 – EMPLOY COMPETENT PERSONS

15.1 The CONTRACTOR shall employ only competent persons to do the work, and whenever the ENGINEER shall notify the CONTRACTOR in writing that any such persons on the work is, in his opinion, incompetent, such persons shall be discharged from the work and shall not again be employed on it, except with the consent of the ENGINEER.

ARTICLE 16 – LABOR AND EQUIPMENT

16.1 If in the opinion of the ENGINEER the CONTRACTOR is not employing sufficient labor or equipment to complete the contract within the time specified the ENGINEER may, after giving written notice, require said CONTRACTOR to employ such additional labor and equipment as may be necessary to enable said work to properly progress. Failure of the CONTRACTOR to comply in the request of the ENGINEER shall be considered a violation of this contract.

16.2 Wherever it may be written that an equipment manufacturer must have a specified period of experience with his product or equipment and does not meet the specified experience period, may be considered if the equipment supplier or manufacturer is willing to provide a bond or cash deposit for the duration of the specified time period which will guarantee replacement of the equipment or materials in the event of failure.

ARTICLE 17 – LIQUORS AND DRUGS

17.1 The CONTRACTOR shall not sell and shall neither permit nor the use of intoxicating liquors or drugs or other materials upon or about the work.

ARTICLE 18 – ACCESS TO WORK

18.1 The OWNER reserves the right if in his opinion, public health, safety and welfare are jeopardized, to access the work and if necessary to employ forces, not a party to this contract for the correction of hazards or defects in the work performed by the CONTRACTOR and the costs and or performance of such work shall be set forth in Article 27.

ARTICLE 19 – EXAMINATION OF WORK

19.1 The ENGINEER shall be furnished with every reasonable facility for ascertaining that the work is in accordance with the requirements and intention of this contract, even to the extent of uncovering portions of the work.

ARTICLE 20 – DEFECTIVE WORK

20.1 The inspection of the work shall not relieve the CONTRACTOR of any of his obligations to fulfill his contract as herein prescribed and defective work shall be made good and unsuitable material shall be rejected, notwithstanding that such work and materials have been previously overlooked by the ENGINEER and accepted or estimated for payment. If any portions of the work are found to be defective before the final acceptance of the whole work, the CONTRACTOR shall forthwith make good such defects in a manner satisfactory to the ENGINEER, and if any material brought upon the ground for use in the work shall be condemned by the ENGINEER as unsuitable or in not conformity with the specifications the CONTRACTOR shall remove such materials from the vicinity of the work and make good areas of uncertainty at the CONTRACTOR's expense to the satisfaction of the ENGINEER.

ARTICLE 21 – MISTAKES OF CONTRACTORS

21.1 The CONTRACTOR shall pay the OWNER, all expenses, losses, and damages as determined by the ENGINEER incurred in consequence of any defect, omission or mistake of the CONTRACTOR or the making good thereof.

ARTICLE 22 – RIGHT TO MATERIALS

22.1 Nothing in this contract shall be constructed as vesting in the CONTRACTOR any right of property in any of the materials removed (castings, reclaim, etc) or placed once having been affixed to the work or the soil, but all such materials shall, upon being so removed, attached or affixed become the property of the OWNER.

ARTICLE 23 – LIMITATIONS OF WORK

23.1 Should the CONTRACTOR consider himself entitled to extra compensation on account of alterations or changes he shall notify the OWNER by making his claim in writing.

23.2 Should, in the opinion of the ENGINEER any contemplated change in the quantities of the work or alterations thereof, materially change the character of the work or any part thereof, or materially affect the compensation of the same, then the work shall be considered extra work.

ARTICLE 24 – EXTRA WORK

24.1 The CONTRACTOR shall perform work incidental to the proper completion of the contract. The amount of compensation to be paid to the CONTRACTOR for extra work shall be determined as one of the following:

24.1.1 By unit prices, if any as set forth in the contract

24.1.2 If no unit prices are set forth, then by unit prices or by lump sum mutually agreed by the OWNER and the CONTRACTOR; or

24.1.3 If no unit prices are set forth and if the parties cannot agree upon unit prices or a lump sum then by the actual net costs in money to the CONTRACTOR as approved by the ENGINEER of the materials and of the wages of applied labor required for such extra work, plus such rental of plant and equipment (other than small tools) required and approved for such extra work, plus ten percent (10%).

24.2 The CONTRACTOR shall furnish itemized statements of costs and the works ordered and submit to the ENGINEER the accounts, bills and vouchers relating thereto.

24.3 The fair rental value of all machinery shall be based upon the most recent edition of "Compilation of Rental Rates for Construction Equipment", as published by the Associated Equipment Distributors or similar publication.

24.4 In the case of extra work performed by subcontractors whether under the specific contract items provided, or otherwise approved by the ENGINEER the ten percent (10%) added to the reasonable costs of the work will be allowed only to the subcontractor. On such work, an additional five percent (5%) of the reasonable costs (before adoption of ten percent) will be paid to the CONTRACTOR for his work in directing the operations of the subcontractor.

24.5 The OWNER and CONTRACTOR may agree to extend this contract for an extent to be agreed upon, however for no more than 5 fiscal years.

ARTICLE 25 – EXTRA TIME

25.1 When extra work is ordered during the progress of work, which required, in the opinion of the ENGINEER, an unavoidable increase of time for the completion of the contract a suitable extension of completion shall be made, only upon approval of the OWNER.

ARTICLE 26 – CLAIMS FOR DAMAGES

26.1 If the CONTRACTOR claims compensation for any damages for work performed or material furnished in accordance with the terms of this contract or for any other cause, he shall promptly, after sustaining of any damage, make a written statement of the damage sustained, to the OWNER and shall on or before the fifteenth day of the month following that in which the damage shall have been sustained, file with the OWNER an itemized statement of the details and the amount of damage. Unless such statement is made, his claim for compensation shall be forfeited and invalidated and shall not be entitled to payment on account of any such damage.

ARTICLE 27 – ABANDONMENT OF WORK

27.1 If the work to be done under this contract shall be abandoned, or if this contract or any part thereof shall be sublet without consent by the OWNER or the rate of progress is unreasonably delayed or that the CONTRACTOR has violated any of the provisions of this contract, the OWNER may notify the CONTRACTOR by a written order, with a copy mailed to the home office of the Surety, to discontinue all work or any part thereof and the OWNER may thereupon by contract or otherwise as it may determine, complete the work and charge the entire expense of completing the work; and for such completion the OWNER for itself or its CONTRACTORS may take possession of and use or cause to be used in the completion of the work, and materials, equipment, machinery, implements and tools of every description as may be found at the location of such work.

27.2 This article shall also include emergency situations where the CONTRACTOR is unable to be reached or has been unresponsive to alerts made by the ENGINEER or OWNER. Every effort shall be made by the OWNER to reach said CONTRACTOR. No action during emergency situations may be considered a breach of contract, however;

27.2a All expenses charged under this article shall be deducted and paid by the OWNER out of any monies due or to become due to the CONTRACTOR under this agreement. The OWNER shall not be held to the lowest figures for the work of completing the contract or any part thereof; (including emergency response) all sums actually paid therefore shall be charged to the CONTRACTOR. In case the expense so charged are less than the sum which would have been payable under this contract, if the same had been completed by the CONTRACTOR, the CONTRACTOR shall be entitled to the difference; and in

case such expenses shall exceed the said sum, the CONTRACTOR shall pay the amount of the excess to the OWNER.

ARTICLE 28 – PRICES OF WORK

281. The OWNER shall pay and the CONTRACTOR shall receive the prices stipulated in the proposal attached hereto as full compensation for everything furnished and done by the CONTRACTOR under this agreement and for faithfully completing the work.

ARTICLE 29 – MONEY MAY BE RETAINED

29.1 The OWNER may keep (5%) monies which would otherwise be payable at any time hereunder and apply the same, or so much may be necessary therefore to the payment of expenses, losses, or damages incurred by the OWNER until all claims are settled or final acceptance of the work. Monies retained shall be placed in a non – interest bearing account for no more than 1 year after final acceptance of the work.

ARTICLE 30 - MEASUREMENT AND PAYMENT

30.1 Any and all work necessary to complete the proposal items should be accounted for by the CONTRACTOR, if for any reason a task(s) to complete a proposal item is not included in these documents it shall be considered incidental to the proposal item. Payment Procedures are described in this Agreement and / or as determined during the Pre-construction meeting.

30.2 CONTRACTOR shall be paid according to the items in the bid schedule as successfully completed within a given pay period and with the details outlined in the contract specifications. Payment will be based on the actual amount of work accepted.

30.3 Payments to the CONTRACTOR will be made for the actual quantities put in place and accepted in accordance with the Contract Documents. At all times the CONTRACTORs units prices will govern payment, unless a penalty is assessed by the OWNER. The CONTRACTOR shall accept in compensation, as herein provided, in full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to the completed work and for performing all work including all loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the work until its final acceptance by the OWNER. Any retained percentage in no way shall relieve the CONTRACTOR of the obligation to repair or renew any defective parts of the construction or to be responsible for all damage due to such defects.

30.4 The City of Rochester, intends for the awarding CONTRACTOR to bill the city directly. The municipality is responsible for paying the CONTRACTOR for

services or values as specified in the contract within 45 days of receipt of the agreed upon pay requisition.

30.5 When alterations in the quantities of work not requiring a supplemental agreement, as herein before provided for, are ordered and performed, the CONTRACTOR shall accept payment in full at the contract price for the actual quantities of work done. No allowance will be made for anticipated profits.

30.6 Should any items contained in the bid form be found unnecessary for the proper completion of the work contracted, the OWNER may eliminate such items from the contract, and such action shall in no way invalidate the contract, and no allowance will be made for items so eliminated in making final payment to the CONTRACTOR.

30.7 Partial payments shall be made as the work progresses as pay requisitions are received from the CONTRACTOR. No payments will be made for stored materials within this contract.

30.8 Final Payment will be due when the CONTRACTOR has completed all work and the CONTRACTOR has submitted all required paperwork. The quality of the work is in accordance with the Contract Documents (subject to tests required under these contract documents).

ARTICLE 31 – SAFETY AND HEALTH REGULATIONS

31.1 In order to protect the lives and health of his employees under the contract, the CONTRACTOR shall comply with all pertinent provisions of the Contract Work Hours and Safety Standards Act; and shall maintain all accurate records in all cases of death, occupational disease and injuries requiring medical attention or causing loss of time from work, arising out of and in course of employment on Work under this Contract.

31.2 The CONTRACTOR alone is responsible for the safety, efficiency and adequacy of his plant, appliances and methods and for any damage which may result from the failure or the improper construction, maintenance or operation.

31.3 The CONTRACTOR shall comply with the requirements of the Occupational Safety and Health Act.

ARTICLE 32 – LIABILITY OF THE OWNER

32.1 No person, firm or corporation, other than the signer of this contract as CONTRACTOR now has any interest hereunder and no claim shall be made or to be valid, and neither the OWNER nor any agent of the OWNER, shall be liable for or to be held to pay any money except as herein provided. The acceptance by the CONTRACTOR of the payment of the final estimate shall operate as and shall be a release to the OWNER, and every agent of the OWNER, from all claims and liability to the CONTRACTOR for anything done or furnished for or

relating to the work, except the claim against the OWNER for the remainder, if any thereby, of the amounts kept or retained as herein provided.

ARTICLE 33 – GUARENTRY

33.1 The CONTRACTOR guarantees that the work to be done under this contract and the materials to be furnished by him for use in the construction of the same will be free from defects or flaws. This guaranty shall be for a period of one year and after the date of acceptance.

33.2 It is hereby agreed and understood that this guaranty shall not include repairs made necessary, by any cause other than defective work or materials furnished by the CONTRACTOR. The CONTRACTOR shall at all times within said period of guaranty keep the surface of the ground over his work in the condition required by this contract and refill settlement or erosion due to any cause whatsoever during the work or when directed by the ENGINEER. Should he fail to do so, the OWNER may have said work completed as described in ARTICLE 27.

ARTICLE 34 – RESPONSIBILTY FOR UTILITIES AND SERVICES

34.1 At points where the CONTRACTORs operations are adjacent to properties of railway, telegraph, telephone, and power companies or are adjacent to other property, damage to which might result in considerable expense, loss or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

34.2 The CONTRACTOR shall cooperate with the OWNERs of any underground or overhead utility lines in their removal and rearrangement operations in order that these operations may progress in a reasonable manner, and the duplication of rearrangement work may be reduced to a minimum and that service rendered by those parties will not be unnecessarily interrupted.

34.3 It shall be the responsibility of the CONTRACTOR to cooperate closely with all utility companies involved and to ascertain the exact locations of all utilities prior to excavation. All existing utilities including but not limited to: sewers, drains, water transmissions, valves shall be protected from damage during construction and if damaged or become inoperable, they shall be repaired by the CONTRACTOR at his own expense.

ARTICLE 35 – TERMINATION

35.1 Upon fourteen calendar (14) days written notice to the CONTRACTOR, OWNER may without cause and without prejudice to any other right of remedy, elect to abandon the project and terminate the agreement. In such case, CONTRACTOR shall be paid for all work executed at the contract prices and for any expense sustained plus reasonable profit.

STATEMENT OF BIDDER'S QUALIFICATIONS

Complete the following questions relative to bidder's qualifications. All questions must be answered and the data given must be clear and comprehensive. This form must be notarized. If necessary, add separate sheets.

1. Name of Bidder:
2. Permanent Main Office Address:
3. When Incorporated:
4. Where Incorporated:
5. How many years have you been engaged in the contracting business under your present firm name?
6. Contracts on hand: (Attach list showing project title, project location, and gross amount of each contract and the approximate anticipated dates of completion.)
7. General character of work performed by your company.
8. Have you ever failed to complete work awarded to you? YES NO
If yes, where, when and why?
9. Have you ever defaulted on a contract? YES NO
If so, where, when and why?
10. List the more important projects recently done by your company, stating approximate cost for each, the month / year completed primary OWNERS contact / telephone number.

11. List your major equipment AVAILABLE FOR THIS CONTRACT. (Attach equipment schedule if necessary.)
12. Experience in construction work similar in importance to this project.
13. With what banks do you do business? Do you grant the OWNER permission to contact this (these) institutions? YES NO
14. If your answer to Number 13 is NO, please explain why.
14. How do you intend to meet the schedule described in the Scope of Work?
15. If you intend to hire subcontractors to do any part of the work, please specify whom?

NAME OF BIDDER

BY: _____
Authorized Signature

Name

Title

STATE OF ()
() SS.
COUNTY OF ()

I, _____, a Notary Public in and for said
County, in the State aforesaid, DO HEREBY CERTIFY that
_____, personally known to me to be the same
person whose name is subscribed to the foregoing instrument, appeared before
me this day in person, and acknowledged that they signed, sealed and delivered
the said instrument as their free and voluntary act, for the uses and purposes
therein set forth.

GIVEN under my hand and Seal this _____ day of _____, 2015.

Notary Public

My Commission Expires

NOTICE OF AWARD

To: _____

PROJECT Description: 2016 Pavement & Highway Capital Improvement Project 16-13.

The OWNER has considered the BID submitted by you for the above-described WORK in response to its Advertisement for Bids dated _____, and Information for Bidders.

You are hereby notified that your BID has been accepted for items in the amount of \$_____.

- ☐ You have been awarded the entire contract and are expected to meet the terms and schedules as stipulated in the contract documents. You will be paid according to the line item prices bid in accordance with the measurement and payment schedule described in these bid documents.

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR's Performance BOND, Payment BOND and certificates of insurance within five (5) calendar days from the date of this Notice to you.

If you fail to execute said Agreement and to furnish said BONDS within five (5) days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your BID as abandoned and as a forfeiture of your BID BOND. The OWNER will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

Dated this _____ day of _____, 2015

(OWNER)

By _____

Title _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged.

By

This the _____ day of _____.

By

Title

NOTICE TO PROCEED

To:

Date:

Project:

City of Rochester 2016 Pavement & Highway Improvement Project 16-13

You are hereby notified to commence WORK in accordance with the Agreement dated _____, 2____, on or before _____, 2____.

The Contract provides for an assessment of the sum of \$750 as liquidated damages for each consecutive calendar day after the established Contract completion date that the WORK remains incomplete after June 15, 2016 in addition to the penalties described in Section 108 of the NHDOT Standards Specifications for Roads and Bridges.

Dated this _____ day of _____, 2____.

(OWNER)
By _____
Title _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED
Is hereby acknowledged by

This the _____ day
Of _____, 2____

By _____
Title _____

SPECIFICATIONS

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ITEM 1 - ASPHALT RECLAMATION

SPECIFICATION 1.1

The quantity of pavement reclamation under this item shall be measured as the area of pavement fully reclaimed in square yards.

SPECIFICATION 1.2

Payment to complete pavement reclamation shall be at the unit price per square yard as stated in the Bid Proposal. Payment under this item includes all equipment, labor, scarifying, pulverizing, excavation, screening, handling, rough grading, of reclaimed material, (if necessary) the placement of additional gravel materials as required to meet the reclaim material specification and removal of excess material to meet grade.

SPECIFICATION 1.3

Standards shall be the NHDOT Standard Specifications for Bridges and Highway Construction, Section 306, Section 304.3.6 and AASHTO T 164.

Weather limitations shall be as indicated in NHDOT "Standard Specifications", Section 306.3.11.2.

SPECIFICATION 1.4

Equipment required for this Section must have the capability of changing forward speed and the depth of cut; be equipped with four wheel drive; perform in forward and reverse; have a cutting rotor with a minimum width of 8'; capable of cutting and pulverizing in both the up and down directions; and have a minimum capability of pulverizing to a minimum depth of 12". Process reclaimed pavement using scarifying or planing mill equipment. Rock crushers shall not be allowed as alternate equipment.

SPECIFICATION 1.5

The reclaimed material shall consist of the pulverized existing pavement and blended with the underlying gravel base with additional gravel, as determined by the Engineers. Water should be added a regular intervals or as ordered to ensure proper compaction and dust control.

Reclaim material shall conform to the following gradation of finished materials:

<u>Sieve Size</u>	<u>Percent Passing By Weight</u>
3"	100
1-1/2"	80-100
3/4"	55-90
#4	40-70
#200	3-10 (Total Sample)

Conform to Section 02223- Roadway Excavation, Backfill, and Compaction, 2.0.1 E. and Section 304 of the NHDOT "Standard Specifications" for additional crushed gravel gradation.

Gradation shall be determined by AASHTO T164.

SPECIFICATION 1.6

Lower or remove all utility castings prior to the start of any work. Stake out for reference to assure access and protect all utilities from machines and debris. Particular attention to water valve boxes, gravity sewer structures, storm drainage structures and any and all other utility during the reclaiming operation.

The limits of pavement reclamation are generally from pavement edge to pavement edge or as directed. The pavement depths may vary along the length of the roadways of the Project.

The CONTRACTOR will furnish all necessary controls to govern grading and crowning within the required limit.

Pulverize or scarify pavements and base gravel to provide a consistent reclaimed material in accordance with Standards shall be the NHDOT Standard Specifications for Bridges and Highway Construction, Section 306.

The ENGINEER reserves the right to determine the depth based on conditions presented during the initial pass of the reclaim machinery.

The reclaim process shall consist of two (2) passes with the reclaim machinery. The reclaim material shall be graded and compacted. After the finish grade has been established, an application of liquid calcium shall be made at a rate of 0.25 gallons per square yard.

Blend in existing driveway aprons to maintain slope and ease of use; using excess reclaimed materials.

Excess reclaimed materials shall remain the property of the OWNER. The CONTRACTOR shall remove all excess material including ('grading rows' prior to base paving) to a storage location to be determined by the OWNER. No separate pay item will be made for the transportation of any such excess material regardless of quantity within city limits and shall be considered incidental to the item.

ITEM 2 - COLD PLANING

SPECIFICATION 2.1

Cold planing of asphalt pavement will be measured by the square yard and shall be assumed to be one and a half inch (1.5") depth, unless otherwise specified.

SPECIFICATION 2.2

The accepted quantities of cold planing of asphalt surfaces to the nominal depth specified will be paid for according to the contract unit price per square yard.

SPECIFICATION 2.3

Cold Planing will be performed according to NHDOT specification Section 417¹, shimmed to grade as necessary and topped with the specified quantity of hot mix asphalt applied according to NHDOT specifications Sections 401, 403, and 410.

SPECIFICATION 2.4

Equipment used for planing of bituminous surfaces shall be a power-operated rotary planing or milling machine capable of uniformly removing the existing bituminous surface.

SPECIFICATION 2.5

All milled material shall be used within the project for shims or transported within the City Limits to be stockpiled for the City's future use. The transportation of the product should be considered incidental to the Cold Planing operation.

ITEM 3 – 1-1/2" STONE

SPECIFICATION 3.1

Stone will be measured by the Ton of material placed as specified by the ENGINEER.

¹ From Standard Specifications for Road and Bridge Construction, as published by the State of New Hampshire Department of Transportation, 2002 edition.

SPECIFICATION 3.2

The conversion factor for converting between tons and cubic yards shall be 1.4 tons per 1 cubic yard.

SPECIFICATION 3.3

Aggregate subbase shall be installed in accordance with Section 02616 Reclaim Bituminous Concrete Pavement and Section 02223 - Roadway Excavation, Backfill and Compaction; and NHDOT "Standard Specification", Sections 203, 304 and 306.

SPECIFICATION 3.4

In order to expedite the testing of materials the CONTRACTOR should notify the OWNER of the proposed sources of material before delivery. The OWNER has the option of conditionally approving materials at the supply source. Any material incorporated into the work which subsequently fails to meet the contract requirements shall be corrected to the satisfaction of the OWNER or removed in its entirety. The material shall meet the standard of Section 306.

ITEM 4 – BITUMINOUS CONCRETE

SPECIFICATION 4.1

Plant mix bituminous pavement mixture will be measured by the Ton to the nearest 0.1 Ton, and in accordance with Section 109.01 of NHDOT Standard Specification for Road and Bridge Construction. That quantity will be the weight used in the accepted pavement, and no deduction will be made for the weight of bituminous material or additives in the mixture. Plant mix bituminous pavement removed because of faulty workmanship or contamination.

SPECIFICATION 4.2

The accepted quantities of hot bituminous pavement will be paid for at the contract price per Ton for the bituminous mixture, complete in place. Emulsified asphalt for tack coat required will be subsidiary to the paving items. Measurement for payment shall be by the actual number of Tons in place based on either load slips collected and verified in the field by the Engineer or Inspection ENGINEER. Payment includes bituminous concrete material, hauling, placing, compacting, sweeping, cleaning, and all else necessary to complete the items. (Analogous to Pay Item 403.11¹)

SPECIFICATION 4.3

Standards shall be the New Hampshire Standard Specifications for Bridges and Highway Construction, Division 400, hereinafter referred to as "NHDOT Standard Specifications".

Pavement supplier and Plant shall be as specified in NHDOT "Standard Specifications" Section 401.3.1. Material certificates shall be signed by producer and CONTRACTOR stating that each material complies with specified requirements.

Design mix provisions for each type of pavement specified to be submitted 7 days in advance of paving.

Certified weigh slips submitted for each truckload of bituminous concrete Materials delivered and placed.

Weather limitations shall be as indicated in NHDOT "Standard Specifications" Section 401.3.5. Base course placement shall be placed when the temperature of the subbase is 40 degrees F. and rising. Wearing course placement shall be when the temperature of the base course is 45 degrees F. and rising.

SPECIFICATIONS 4.4

ASPHALT CEMENT- Grade as specified to comply with Section 702 of the NHDOT "Standard Specifications".

BITUMINOUS CONCRETE PAVEMENTS

- A. Comply with the material requirements NHDOT "Standard Specifications", Section 401.
- B. Base Courses (Binder): Type-B.
- C. Wearing Course: Type-E.
- D. Shims: Type-F.
- E. Overlay: Type-E.
- F. Sidewalk (1 course): Type-E
- G. Walkway (1 course): Type-E
- H. Driveway Aprons: Type-E (Hand placed)

BITUMINOUS TACK COAT

- A. Comply with NHDOT "Standard Specifications" Section 410.
- B. Grade: RS-1.

SPECIFICATION 4.5

Prior to application of shims, overlays or wearing pavement ensure all pavements are clean and free of debris by sweeping or blowers to the satisfaction of the OWNER.

Prior to application of wearing surface, raise utility castings to final grade. Between raising and the application of pavement, the edge of the utility casting will be painted with fluorescent orange paint.

All utility cover edges shall be painted with a suitable amount of bituminous coating. All utility man hole covers, valve boxes and any other utility structure shall be free of contamination of asphalt and shall work freely upon inspection. It is expected that the contractor is mindful of protecting all structures during the work.

Transverse joints with existing pavement shall be cut back at a depth sufficient to allow placement of new pavement at the specified depth.

Pavement courses shall be spread continuously by a suitable paving machine to line, grade and thickness specified. Paving operations may require the use of slide rails for additional width. When slide rails extend beyond 18" they shall be accompanied by auger extensions.

Paving machines and compaction rollers shall meet the minimum requirements of the NHDOT "Standard Specifications", Section 401.3.6.

Permanent Bituminous Concrete base course shall be placed to a compacted thickness as directed. In areas that have been reclaimed, the base course pavement shall be placed no later than seven (7) days following final completion of the reclamation, fine grading and compaction process.

Apply tack coat, as required or as directed, immediately prior to paving against curbing, gutters, manholes, existing pavement and on cold planned areas for adequate bond. Apply tack to all areas necessary and existing weathered pavement at a rate of 0.5 to 2.0 gallons per square yard.

ITEM 5 – BASE PREPARATION, COMPACTION AND FINE GRADING

SPECIFICATION 5.1

Base preparation, which includes compaction of reclaimed material and road base gravels, and fine grading, will be measured by the square yard.

SPECIFICATION 5.2

The accepted quantities will be paid for at the unit price per square yard and will include supplying the equipment necessary to complete the tasks.

Guard rails, curbing, drainage grates, utility boxes, signs, mailboxes, shrubs and trees in the area of the Work shall be protected, either by guarding or temporary removal and replacement. If damage occurs, repairs shall be completed using materials equal to that existing prior to construction. Repair costs for damaged items shall be the responsibility of the CONTRACTOR.

Construction in the vicinity of utilities that endangers poles, pipes or conduits shall not proceed until the respective utility has been notified. Costs incurred as a result of the CONTRACTOR's negligence or failure to cooperate with a utility shall be borne solely by the CONTRACTOR.

Fees charged for holding of poles, temporary relocation of power, support or guarding shall be paid for by the CONTRACTOR.

SPECIFICATION 5.3

If required by the Engineer the OWNER shall pay for aggregate gradation analyses. The OWNER shall pay moisture maximum density tests and compaction test fees.

Surfaces under paved areas shall be shaped to grade, line and cross section within 1/2-inch positive or negative tolerance relative to sub grade elevations.

Rolling and shaping of successive roadway gravel base lifts shall be done parallel to roadway centerline and continue until each layer conforms to the required grade and cross-section.

Degree of Compaction shall be in accordance with the following minimum densities:

Material Density requirements shall be field determined in accordance with ASTM D1556/AASHTO T191 (Sand Cone) or ASTM D2922/AASHTO T238-239 (nuclear method). Maximum density shall be determined by ASTM D698/AASHTO T99, Standard Proctor.

Frequency of testing shall be determined by the Engineers based upon the CONTRACTOR's notification of completed areas. An independent laboratory will make tests. The recommended minimum number of test shall be in accordance with the following guidelines:

1. Roadway: 1 for every 100 linear feet of roadway.
2. Highway trench (below pavement): 1 for every 200 linear feet of trench lift.

Engineers may modify these guidelines upon field conditions and observations.

The CONTRACTOR shall notify the OWNER 24 hours in advance when testing can occur. Material that does not meet the minimum density requirements shall be reworked in accordance with the NHDOT Standard Specifications or removed and replaced, at the CONTRACTOR's expense, with acceptable material.

SPECIFICATION 5.4

Compaction of roadway gravels shall be done with an approved vibratory roller, producing a dynamic force of at least 27,000 pounds in a 12-inch lift unless otherwise specified by the OWNER.

SPECIFICATION 5.5

Unsuitable Material shall consist of deposits of saturated or unsaturated mixtures of soils and organic matter not suitable for foundation material regardless of moisture content.

Unsuitable material shall also consist of any material containing excessive plastic clay, vegetation, debris, pavement, stones or boulders over six inches (6") in greatest dimension, which, in the opinion of the ENGINEER, will not provide a suitable foundation or sub grade.

SPECIFICATION 5.6

Gravel roadway base courses shall be placed in 8" maximum lifts And thoroughly compacted, as required, prior to successive lifts. Do not place backfill or fill material on surfaces that are muddy, frozen or contain frost or ice.

Dust Control shall be ongoing throughout the work areas and adjacent off site stockpile areas or as directed. Dust shall be controlled by water or calcium chloride.

During placement of roadway gravels and fine grading storm water drainage entrances shall be closed when rain is threatening. Direct resulting run-off to maximize collection of sediment.

SPECIFICATION 5.7

Fine grading shall consist of the final grading required to level the sub grade, base and surface course to limits within the specified tolerances indicated in paragraph Specification 5.3

Gravel base courses shall be placed in 8 inch maximum lifts and thoroughly compacted as required prior to successive lifts. Care shall be taken to prevent separation of granular materials during placement. Segregated materials shall

be removed and replaced using methods calculated to reduce the separation of aggregates.

SPECIFICATION 5.8

Disposal of surplus materials shall be at the express direction of the Engineers. Surplus excavated materials shall be stockpiled at an approved location.

ITEM 6 – HAND PAVING

SPECIFICATION 6.1

Plant mix bituminous pavement mixture will be measured to the nearest 0.1 ton, and in accordance with Section 109.01 of NHDOT Standard Specification for Road and Bridge Construction. That quantity will be the weight used in the accepted pavement, and no deduction will be made for the weight of bituminous material or additives in the mixture. Plant mix bituminous pavement, removed because of faulty workmanship or contamination.

SPECIFICATION 6.2

The accepted quantities of hot bituminous pavement will be paid for at the contract price per ton for the bituminous mixture, complete in place without the use of a paver. Emulsified asphalt for tack coat required will be subsidiary to the paving items. Measurement for payment shall be based on load slips collected and verified in the field by the ENGINEER. Payment includes bituminous concrete material, hauling, placing, compacting, sweeping, cleaning, and all else necessary to complete the items.

SPECIFICATION 6.3

Pavement supplier and Plant shall be as specified in NHDOT "Standard Specifications" Section 401.3.1.

Material certificates shall be signed by producer and CONTRACTOR stating that each material complies with specified requirements.

Certified weigh slips submitted for each truckload of bituminous concrete materials delivered and placed.

Weather limitations shall be as indicated in NHDOT "Standard Specifications" Section 401.3.5.

Base course placement shall be placed when the temperature of the Subbase is 40 degrees F. and rising.

Wearing course placement shall be when the temperature of the base

course is 45 degrees F. and rising.

SPECIFICATION 6.4

ASPHALT CEMENT- Grade as specified to comply with Section 702 of the NHDOT "Standard Specifications".

Comply with the material requirements NHDOT "Standard Specifications", Section 401.

Driveway Aprons: Type-E (Hand placed)

BITUMINOUS TACK COAT

- A. Comply with NHDOT "Standard Specifications" Section 410.
- B. Grade: RS-1.

SPECIFICATION 6.5

Prior to application of the wearing pavement ensure all driveway slopes in harmony with the roadway to alleviate ponding or water flow out of the city right of way to private property. When driveways conflict with the roadway design special adjustments may be necessary to achieve the necessary slope to obtain the desired positive results. The CONTRACTOR should make himself aware of such conditions prior to the final wearing course being installed. If the CONTRACTOR does not take appropriate action payment may be withheld until remedies are put in place to solve such problems.

The City is aware that all conditions cannot be seen, however, requests the due diligence and expertise of the CONTRACTOR. The City will make every effort to work with the CONTRACTOR to try and mitigate such issues.

Pavements and sub base shall be clean and free of debris by sweeping or blowers to the satisfaction of the OWNER.

Prior to application of wearing surface, raise all utility casings to final grade including gas and water curb stops if any.

Pavement courses shall be spread continuously to line, grade and thickness specified.

Compaction rollers shall meet the minimum requirements of the NHDOT "Standard Specifications", Section 401.3.6.

ITEM 7 - PAVEMENT STRIPING

SPECIFICATION 7.1

Retro reflective pavement marking lines of the type (SSWL, SSYL or other) and (4") width specified by the OWNER will be measured by the linear foot to the nearest foot of length of marking applied. Double yellow lines and combination solid/broken lines will be measured as separate lines according to the length of each individual marking applied.

Measurement for payment shall be as jointly measured and approved by the CONTRACTOR and ENGINEER based on existing field conditions. The accepted quantities of retro reflective pavement marking lines will be paid for at the contract unit price per linear foot complete in place.

SPECIFICATION 7.2

- A. Paint shall conform to 708-NH 4.11 White Traffic Paint or 708-NH 4/12 Yellow Traffic Paint or current standard as adopted by NHDOT.
- B. Glass Beads shall conform to 708-NH 4.13 and shall be Type 1 with a moisture resistant coating.

SPECIFICATION 7.3

12" Stop bars shall be painted at stop signs of all streets following the application of the wearing course of pavement and shall be paid per LF at a rate of three (3) times the 4" nominal width.

All pavement markings will be required following the application of the wearing course.

The CONTRACTOR will be required to note the location and patterns of pavement markings existing before the markings are removed or obliterated and shall replicate them following the application of pavement, unless a modification is ordered by the OWNER.

ITEM 8 – PAVEMENT MARKINGS

SPECIFICATION 8.1

Retro reflective pavement marking symbols or words of the type specified will be measured by the square foot, to the nearest 1 square foot of area applied, based on established areas where existing pavement markings occurred prior to the obscuring the existing pavement by either reclaiming, cold planing, or overlaying or in locations specified by the OWNER.

Measurement for payment shall be as jointly measured and approved by the CONTRACTOR and ENGINEER based on existing field conditions

ITEM 9 – GRAVEL SHOULDERS

SPECIFICATION 9.1

Crushed gravel for shoulder leveling will be measured by the Ton determined by Certified weigh slips submitted for each truckload of material delivered and placed.

SPECIFICATION 9.2

The contract pay quantities, plus or minus quantity modifications authorized by the ENGINEER. The conversion factor for converting between tons and cubic yards shall be 1.5 tons per 1 cubic yard.

ITEM 10 - SAW CUT PAVEMENT

SPECIFICATION 10.1

Sawed pavement of the type specified will be measured by the linear foot.

SPECIFICATION 10.2

The accepted quantity of sawed pavement will be paid for at the contract unit price per linear foot.

ITEM 11 - MOBILIZATION

SPECIFICATION 11.1

Mobilization is based on delivering / moving and storing moving all the necessary equipment and materials to each location.

SPECIFICATION 11.2

Mobilizations will be paid on an each basis to move all the necessary equipment to complete the tasks. Equal payments will be made per site. The amount within should cover all costs associated with every aspect of preparation through final paving and stripping. No separate payments will be made for specialized equipment or to replace damaged equipment and or any future mobilizations as required by the CONTRACTOR for repairs or damage.

SPECIFICATION 11.3

If for any reason the schedule is not completed and future work is deleted from the contract, the CONTRACTOR is not entitled to the entire quantity only the value of tasks that have been completed.

ITEM 12 - OFFICERS

SPECIFICATION 12.1

Uniformed officers will be measured by the actual numbers of hours authorized, as determined by the Engineer/inspection ENGINEER. The CONTRACTOR is required to schedule the utilizing of all uniformed officers. Officers shall be present when in the opinion of the ENGINEER, OWNER or deputy police chief and in all instances where operations are occurring during night time hours.

SPECIFICATION 12.2

The hours authorized for uniformed officers will be paid for at the invoice value. The set amount in the proposal is not a lump sum, but is a contract allowance for bidding purposes and only the dollar value as authorized will be paid as hours are worked.

ITEM 13 - MAINTENANCE OF TRAFFIC

SPECIFICATION 13.1

Maintenance of traffic will be paid on an each basis to complete the tasks. Equal payments will be made per site. The amount within should cover all costs associated with every aspect of the work. The contractor shall become familiar with the traffic volume and anticipate the requirements necessary to complete the work. The item should include all necessary devices and personnel to handle the volume of traffic and work to be performed and confirm to NHDOT Specification for Highways and Bridges, section 618 and 619. Tapers and lane shifts shall be such to confirm with all NHDOT standards. If for any reason the OWNER / ENGINEER are of the opinion that care is not being taken to ensure public safety or to protect the work, he may stop the work until corrective measures are taken. It is assumed that a minimum of (2) two flaggers will be required on all streets, at all times (regardless of the presence of details) that work is being performed. Flaggers shall be present at a rate no less than per 2000 LF of work undertaken. Flaggers shall also be directly present around all paving operations. Care shall be taken to ensure that recently paved sections of road are protected by barrels or personnel until sufficient cooling has occurred.

SPECIFICATION 13.2

If for any reason the schedule is not completed and future work is deleted from the contract, the CONTRACTOR is not entitled to the entire unit quantity.

ITEM 14 - RESETTING OF FRAMES, GRATES AND COVERS

SPECIFICATION 14.1

This pay item shall consist of the removal and resetting of all castings owned and maintained by the OWNER within the paved areas or areas of work. These castings include frames for catch basin grates, drainage and sewer manholes, water service shutoffs and water gate valve boxes. This Pay item assumes the removal and resetting as one item regardless of how many times it is removed and reset. Resetting of castings will be paid for on a unit basis as agreed upon by the contract ENGINEER. Payment will only occur after the application of the final pavement wearing surface. If structures are lost or removed to facilitate operations it is the CONTRACTORS responsibility for replacement.

SPECIFICATION 14.2

Protect structures from debris during removal and construction of roadway, then, when appropriate reset frames, grates and covers as directed; man hole covers shall be flush with the finished pavement and catch basins are to be left 1" or 1.5" below finish or as directed. Frames or covers shall be set on a stable structure with up to 1 VF of rebuilding assumed within the item. Castings shall be set within a concrete bed; no final paving over structures will be permitted. If for any reason a structure is in the final condition found to be buried, then the CONTRACTOR shall be responsible for the following; saw cut area around frame / structure to allow for a plate compactor to fit in its entirety around the perimeter, excavate, raise structure, replace material if necessary with appropriate gravel, place pavement in two lifts (wearing course type –E) then infrared the joint to blend existing pavement seamlessly.

SPECIFICATION 14.3

The City may elect to replace any number of covers and frames and grates as desired to meet city standards (regardless of size) and shall supply the replacement apertures to the CONTRACTOR. Any unused or replaced structures are the property of the City of Rochester and shall be returned to the DPW at 45 Old Dover Road. All new structures shall be assumed to be at 45 Old Dover Rd and delivery to the site shall be the responsibility of the CONTRACTOR.

SPECIFICATION 14.4

It is assumed that the CONTRACTOR shall supply all necessary water valve box risers to meet the new grade.

ITEM 15 – CALCIUM CHLORIDE

SPECIFICATION 15.1

Calcium Chloride shall be at the price per gallon as agreed upon by the contract. OWNER will pay for the application of calcium chloride only after the OWNER has consented to its application.

SPECIFICATION 15.2

Payment will be for the actual amount of calcium chloride applied. The labor and equipment necessary for material application will be subsidiary.

SPECIFICATION 15.3

The rate that Calcium Chloride applied may be increased due to the temperature, relative humidity, particle size distribution and environmental conditions that exist for the given roadway application. 75% of the predetermined amount shall be spread uniformly at this depth, when a calcium chloride solution is used uniform spraying of the liquid is adequate, however, in some instances calcium chloride pellets can be used.

ITEM 16 – MAILBOX ASSEMBLY

SPECIFICATION 16.1

Payment will be a unit cost for the removal and resetting of each mailbox assembly including post(s) and associated mailbox(es). Any mailbox structure that has two or more physical mailboxes mounted to a single post structure will be counted as one mailbox assembly.

Contractor shall take care in the removal of the mailbox assembly, if destroyed than it shall be replaced in kind (with same) and paid for at the agreed upon unit price. Costs associated with a new replacement mailbox assembly are incidental.

Interim settings to facilitate the receipt of mail while operations are occurring are considered incidental.

ITEM 17 – LOAM AND SEED

SPECIFICATION 17.1

Loam and seed will be measured by the square yard as determined by actual surface measurements of the lengths and widths of the loamed areas to the nearest square yard.

The accepted quantities of loam and seed of the depth specified will be paid for at the contract unit price per square yard complete in place with the seed germinating and growth established to the OWNERS satisfaction.

New topsoil shall be loose, friable material without refuse or chemicals toxic to growth. Loam shall be free of stones, lumps, stumps, roots or objects greater than two (2") inches in diameter.

Topsoil shall be obtained from approved local sources. Loam obtained from bogs or wet areas shall be unacceptable.

All grass seed shall be fresh, clean, new crop seed and shall meet the provisions of the New Hampshire Agricultural and Vegetable Seeds Law. Other seed mixtures and application rates may be utilized as recommended by USDA - Natural Resources Conservation Service, but only upon written approval from the Engineers.

SPECIFICATION 17.2

Make every effort to seed during optimum growing periods and to conform to the requirements below;

1 Seed:

GRASS MATERIALS (NHDOT PARK SEED TYPE 15 MIX)

	<u>LBS/ACRE</u>	
Creeping Red Fescue (38%)	30	
Perennial Rye Grass (25%)	20	
Red Top (6%)	5	
Kentucky Bluegrass (31%)	25	
	<hr/>	
	80	lbs/acre

GRASS MATERIALS (NHDOT SLOPE SEED TYPE 44 MIX)

	<u>LBS/ACRE</u>	
Creeping Red Fescue (42%)	25	
Perennial Rye Grass (33%)	20	
Red Top (8%)	5	
Alsike Clover (8%)	5	
Birdfoot Trefoil (8%)	5	
Other (1%)	0	
	<hr/>	
	60	lbs/acre

2 Application Rate: see above.

3 Lime: Calcitic or dolomitic limestone applied at a rate of 2 tons per acre (100 pounds per 1,000 square feet), if deemed

necessary by the ENGINEER. Sieve analysis shall show a minimum of 40 percent passing a No. 100 sieve; 95 percent passing a No. 8 sieve

- 4 Fertilizer: 10-20-20 applied at a rate of 300 pounds per acre (7 pounds per 1,000 square feet).

Seeding shall be applied by broadcast or hydro-seeding method.

1. Mulch all seeded areas within 48 hours of application. Hay properly fluffed may be applied at approximately, but not in excess of, 3 tons per acre.
2. Matings, when installed on slopes, shall be installed in accordance with Section 644.3 of New Hampshire Department of Transportation Standard Specifications for Bridge and Highway Construction.

Certification of seed and fertilizer manufacturer's guaranteed analysis of materials shall be submitted in advance of starting the Work of this section.

1. Seed analysis shall cite botanical and common names of each seed of the mixture required.
2. Samples of loam to be used from on-site stockpile shall be submitted.
3. Grass seed shall be delivered in original containers showing analysis, percentage of pure seed, year of production, net weight, germination rate and location of packaging.

All areas to be seeded shall be graded uniformly. Foreign matter, plants, roots, stones and debris shall be removed from sub grade.

Topsoil shall be applied to a minimum depth of 4". Lime and fertilizer shall be worked into the soil by raking, harrowing or dragging with a chain mat.

1. Lime shall be applied at a rate not to exceed 2 tons per acre, but generally at the direction of the Engineers.
2. Fertilizer shall be applied at a minimum rate of 12 pounds per 1000 square feet.
3. Seed shall be applied at the recommended application rates shown.

Seed shall be applied only after 24 hours have elapsed from the time of lime application and worked into the top three (3") inches of topsoil.

Loamed areas shall be raked, rolled, and mulched as soon as possible.

Hydro-seeded areas shall be done in accordance with Section 644 of the New Hampshire Standard Specifications.

Seeding of areas shall be done between April 1 and June 1, and August 15 and October 21.

SPECIFICATION 17.3

Maintain and establish lawns by watering, fertilizing, weeding, replanting and other operations as necessary. Roll, regrade and replant bare or eroded areas and mulch to provide uniformly smooth lawn. Maintain temporary protection fences as necessary to establish lawns.

Watering: Water lawns as needed. The CONTRACTOR shall contact the OWNER to review water source(s) availability and coordinate access to those source(s).

The initial mowing and trimming shall be performed by the CONTRACTOR as soon as there is enough top growth to cut with a mower set a 3" high.

Post fertilizer: Apply fertilizer to lawn after first mowing and when grass is dry, as necessary.

SPECIFICATION 17.4

Remove temporary hay bale, silt fence and berms once permanent soil stabilization has taken place.

Remove unsuitable sediment and silt materials from the site and dispose of in a suitable manner.

Seeded areas shall be mulched with cured hay. When air-dried in the loose state, the contents of a representative bale shall lose not more than 15 percent of its resulting air-dry weight. It shall be free from weed seeds and foreign matter.

Restoration of growth may be accepted in parts agreeable to the Engineers, provided the Work offered is complete, including maintenance. To be acceptable, a stand of grass shall show a reasonably thick, uniform stand free from sizeable areas of thin or bare spots.

The CONTRACTOR shall provide a one (1) year warranty for all restoration of growth after the date of Substantial Completion. The warranty shall provide a guarantee for the restoration area against defects including death and unsatisfactory growth, except for defects resulting from lack of adequate maintenance, neglect, or abuse by the OWNER or abutting individual

landowners, abnormal weather conditions unusual for warranty period, or incidents that are beyond the CONTRACTOR's control.

ITEM 18 – INCIDENTAL CONSTRUCTION

SPECIFICATION 18.1

This work shall consist of excavation and backfill to complete the installing or removing and relaying, at locations as determined in the field. Common structure excavation to a depth specified within section 206.4.1 shall be assumed however field conditions may differ; bedding and backfill shall be included in the work as well as removal of unsuitable materials within city limits. This work shall also include ditch lines.

The accepted quantities will be that per LF of pipe installed or ditch line. NHDOT specification 206 AND 603 shall be used as a reference.

SPECIFICATION 18.2

This item shall include excavation, embankment-in-place, embankment-in-place surplus, stockpile surplus, and borrow, impervious material and rehandling surcharge material.

Temporary erosion control measures shall be put in place and consist of the use of hay bales, or silt control fencing, as an erosion and pollution control device at locations directed by the Engineers.

Conform to all requirements of New Hampshire Department of Environmental Services permits.

Verify prior to start of work, areas and requirements of erosion control and discuss with OWNER.

Reference Standards for erosion control shall be Storm water Management and Sediment Control Handbook for Developing Areas of New Hampshire, August 1992, USDA-Soil Conservation Service, Durham, New Hampshire, hereinafter called "Erosion Control Handbook".

Hay bales for shall consist of rectangular-shaped bales of hay or straw weighing at least 40 pounds per bale. They shall be free from primary noxious weed seeds and rough or woody materials.

SPECIFICATION 18.3

Embankments shall be graded to ensure run-off of water. No embankments shall be constructed on frozen earth materials. Sustained freezing temperatures shall result in the suspension of all embankment work, unless directed otherwise by

the ENGINEER fill materials shall be free of ice and frozen particles. If areas are saturated by water, it shall be corrected.

A roadside ditch shall be assumed to be 6-foot wide. Remove and replace mailboxes as necessary. Roadside ditches shall be loamed and seeded if longitudinal slope is less than 3 percent. Slopes greater than five (5) percent shall have a suitable geotextile fabric and riprap consisting of erosion stone with a d50 diameter of 6 inches, or as directed by the OWNER.

Direct run-off appropriately until vegetation or riprap is in-place at drainage swales.

SPECIFICATION 18.4

Matting for Erosion Control shall consist of one of the following:

1. Jute mat of open weave averaging 130 pounds per 14,400-yard spindle or 1.22 pounds per linear foot of weave 48 average inches wide.
2. Excelsior mat of wood excelsior, 35 inches minimum width, weighing 0.8 pounds per yard. Mat shall have netting attached to a single side to facilitate handling and to increase strength.
3. Staples used as matting anchors shall be No. 11 (or heavier) plain iron wire, made from lengths of 12 inches each.

SPECIFICATION 18.5

Siltation fence, when required, shall be MIRAFL Environfence or approved equal. On particularly steep slopes or areas where there is a likelihood that a significant quantity of water may pass behind the siltation fence, the OWNER may require the siltation fence be reinforced on the down gradient side with chicken wire or similar wire meshed fabric acceptable to the OWNER's ENGINEER.

ITEM 19 – REBUILD CONCRETE / BRICK STRUCTURES

SPECIFICATION 19.1

This specification shall consist of constructing or reconstructing catch basins, drop inlets or manholes as directed and shall be measured by the vertical foot (VF), vertically to the nearest tenth, between the top of the undisturbed portion of the existing structure to the bottom of the re-set frame and grate minus 1 foot. No Payments will be made for reconstructing portions of structures which are unnecessarily disturbed.

SPECIFICATION 19.2

Clay brick shall conform to the requirements AASHTO M 91, Grade MS. The use of concrete bricks will not be permitted. Concrete Masonry Units shall conform to the requirements of ASTM C 139 and shall have a minimum compressive strength of 20 MPa (30000 psi) when tested by the method in AASHTO T 140. Cement mortar shall conform to the NHDOT Specification sec. 707.

ITEM 20 – CURB RE-SET

SPECIFICATION 20.1

This work shall consist of re-setting or removal and delivery of granite curbs (within City limits) as directed and shall be paid by the linear foot (LF).

SPECIFICATION 20.2

Re-set curb shall be City owned granite or site salvage granite. Finishes and tolerances shall conform to section 609 in NHDOT Specifications; however, all granite put in place shall be backed with 3/8" concrete only, finished flush to the base pavement.

ITEM 21 – ESCALLATION

SPECIFICATION 21.1

The intent of this specification provision is to limit the risk to the Contractor if the cost of asphalt cement materials changes drastically between the time the project is bid, and the time the qualifying work is performed. There is no guarantee that any of the funds allocated within the allowance will be paid to the Contractor. Contractor shall carry the allowance as specified within the pay items list. The accepted quantities for payment or credit shall be specified below.

This item shall cover only the liquid asphalt portion of the bituminous cement. The adjustment will take effect when the monthly price for asphalt cement as furnished by the Bureau of Materials and Research differs from the base price contained in the proposal. The monthly price will be furnished by the Bureau of Materials and Research on the first business day following the 14th calendar day of each month. The contract prices of bituminous materials will be paid under the respective items within the contract. The price adjustment, as provided herein, upwards or downwards, will be made at the end of each month in which the work was accomplished as follows:

The price adjustment will be based on the percentage of virgin asphalt cement stated in the Approved Mix Design. A contract adjustment will be made under Item 23 on the following: (monthly price minus the base price) X (Approved Mix Design Percentage of virgin asphalt cement) X (tons of pavements used).

No item for asphalt adjustment emulsion shall be assumed. Please see Special Attention within the NHDOT Specifications.

ITEM 22 – 24” PAMEREX MH CASTINGS

SPECIFICATION 22.1

The accepted quantity of castings will be paid for the contract unit price per each casting as installed.

SPECIFICATION 22.2

Manhole frame and cover shall be called Pamrex or approved equal. All frames and covers shall be made of ductile iron and be 3rd party certified and ISO 9000 approved. Products shall be road tested in road conditions for a minimum of 2 years. Castings shall be smooth with no sharp edges and constructed to support a minimum HS -20 wheel loading. Product shall be designed to hinge and incorporate a 90 degree blocking system to prevent accidental closure. Frame shall come complete with an open hinge box and a hinge infiltration plug. Covers shall be one-man operable using standard tools and shall be capable of withstanding a test load of 120,000 lbs. Frames shall be circular and shall incorporate a seating ring capable of withstanding surface water inflow and from absorbing shock from routine traffic. Product will be available 24” inch clear opening. The frame depth shall not exceed 4”, and the flange shall incorporate bedding slots and bolt holes.

SPECIFICATION 22.3

Product shall be descriptive with ‘sewer’ or ‘drain’ clearly pronounced within the mold. The placement of the casting shall be position to open against the natural flow of traffic.

ITEM 23 – 32” PAMEREX MH CASTINGS

SPECIFICATION 23.1

The accepted quantity of castings will be paid for the contract unit price per each casting as installed.

SPECIFICATION 23.2

Manhole frame and cover shall be called Pamrex or approved equal. All frames and covers shall be made of ductile iron and be 3rd party certified and ISO 9000 approved. Products shall be road tested in road conditions for a minimum of 2 years. Castings shall be smooth with no sharp edges and constructed to support a minimum HS -20 wheel loading. Product shall be designed to hinge and incorporate a 90 degree blocking system to prevent accidental closure. Frame shall come complete with an open hinge box and a hinge infiltration plug. Covers shall be one-man operable using standard tools and shall be capable of withstanding a test load of 120,000 lbs. Frames shall be circular and shall incorporate a seating ring capable of withstanding surface water inflow and from

absorbing shock from routine traffic. Product will be available 32" inch clear opening. The frame depth shall not exceed 4", and the flange shall incorporate bedding slots and bolt holes.

SPECIFICATION 23.3

Product shall be descriptive with 'sewer' or 'drain' clearly pronounced within the mold. The placement of the casting shall be position to open against the natural flow of traffic.

ITEM 24 – REXUS FRAME & GRATES

SPECIFICATION 24.1

The accepted quantity of castings will be paid for the contract unit price per each casting as installed.

SPECIFICATION 24.2

Frame and grates shall be called Rexus or approved equal. All frames and covers shall be made of ductile iron and be 3rd party certified and ISO 9000 approved. Products shall be road tested in road conditions for a minimum of 2 years. Castings shall be smooth with no sharp edges and constructed to support a minimum HS -20 wheel loading. Product shall be designed to hinge and incorporate a 90 degree blocking system to prevent accidental closure. Grates shall be one-man operable using standard tools and shall be capable of withstanding a test load of 100,000 lbs. The cover shall incorporate a spring bar locking system, which automatically activates when the cover is closed. This device shall be capable of being deactivated if required. Frames shall be square and shall incorporate a seating ring capable of withstanding surface water inflow and from absorbing shock from routine traffic. Product will be available 24" inch clear opening. The frame depth shall not exceed 4", and the flange shall incorporate bedding slots and bolt holes. The flange may be 3 or 4 flange depending upon application.

SPECIFICATION 24.3

The placement of the casting shall be positioned to open completely against the normal flow of traffic; contractor is to be mindful of curbing locations to allow ease of use.

ITEM 25 – DROP INLETS

SPECIFICATION 25.1

The accepted quantity of drop inlets will be paid for as agreed to within the pay items list for the contract unit price complete and in-place

SPECIFICATION 25.2

This work shall consist of constructing or installing drop inlets as directed. Common structure excavation to a depth specified, bedding and backfill shall be included within the work. NHDOT Specification 604 shall be referenced

ITEM 26 – ASPHALT MILLING / TRIMMING

SPECIFICATION 26.1

Trimming of asphalt pavement will be measured by the square yard and shall be assumed to be a minimum of 18" width and one and a half inch (1.5") depth, unless otherwise specified.

SPECIFICATION 26.2

The accepted quantities of trimming of asphalt surfaces to the nominal depth specified will be paid for according to the contract unit price per square yard.

SPECIFICATION 26.3

Trimming will be performed according to NHDOT specification Section 417², shimmed to grade as necessary and topped with the specified quantity of hot mix asphalt applied according to NHDOT specifications Sections 401, 403, and 410. Trimming shall be performed at all driveways and street tie in's as necessary or specified by the ENGINEER.

SPECIFICATION 26.4

Equipment used for trimming of bituminous surfaces shall be a power-operated rotary planning or milling machine capable of uniformly removing the existing bituminous surface.

SPECIFICATION 26.5

All milled material shall be used within the project for shims or transported within the City Limits to be stockpiled for the City's future use. The transportation of the product should be considered incidental to the trimming operation.

SPECIFICATION 26.6

Trimming will be performed at all construction joints where reclaiming has taken place for approximately 20 LF to tie the wearing course into the existing pavement. As a standard the City would like all joints including driveways within the limit of work roadway to be milled / trimmed unless otherwise specified or is unattainable or undesirable.

² From Standard Specifications for Road and Bridge Construction, as published by the State of New Hampshire Department of Transportation, 2002 edition.