## RURAL MUNICIPALITY OF ROSEDALE

## TENDER

## **RM OF ROSEDALE - WATER PIPELINE EXTENSIONS 2019**



# **Table of Contents**

TENDER DOCUMENTS	NO. OF PAGES
PART 1   Instructions to Bidders	2
<b>PART 2</b> Insurance, Performance Security and Safety Requirements	3
PART 3 Tender Forms –including:	
A. Tender Submission:	
Tender Form - Form No. 3A	3
Schedule of Prices - Form No. 3B	1
Bid Bond and Agreement to Bond - Form No. 3C	2
B. Tender Acceptance:	
Performance Bond - Form No. 3D	2
Labour and Materials Payment Bond - Form No. 3E	3
<b>SPECIFICATIONS</b>	
Special Provisions	10
Measurement and Payment	3

## **SPECIFICATIONS**

## The Manitoba Water Services Board <u>STANDARD CONSTRUCTION SPECIFICATIONS</u>\*

May 2015

\*Note: Refer to MWSB Website: http://www.mbwaterservicesboard.ca/standard-construction-specs.html

for updates to these Specifications.

It is the responsibility of the holder of these Specifications to maintain the most recent update.

<b>SECTION</b>	TITLE	REVISION	NO. OF	
<b>DIVISION 1</b>	– General	DATE	<u>PAGES</u>	
MWSB 1000	General Conditions	May 2015	37	
Traffic Control MI Work Zone Traffic Control Manual				
https://www.gov.mb.ca/mit/contracts/workzone.html				
DIVISION 2	- Site Work			
022180	Pipe Excavation, Bedding and Backfill		11	
022840 Supply and Placement of Rip Rap and Rip Rap Bedding		3		
024850	Topsoil and Finish Grading		2	
024860	Seeding	May 2015	3	

		-	
027020	Water Service Connections	May 2015	9
027050	Removal of Existing Culverts		2
027060	Pressure Pipelines	May 2015	34
027070	Highway, Railway, Roadway and Utility Crossings	May 2015	7

## **APPENDIX**

Listing of Approved Products	May 2015	44
------------------------------	----------	----

## **DRAWINGS**

Cover Page	G-001
Legend/Site Plan	G-002
Pipeline Extensions	C-101
Miscellaneous Details	C-401
Miscellaneous Details	C-402

# **Table of Contents – Instructions to Bidders**

Project Information	1
Tender Form	2
Schedule of Prices	2
Acceptance of Tender	2
	Project Information Project Specifications Submission Deadline and Address Inquiries Tender Form Schedule of Prices Acceptance of Tender

## **INSTRUCTIONS TO BIDDERS**

#### 1. <u>Project Information</u>

(a) The Rural Municipality of Rosedale (the Owner) is issuing this Request for Tenders for the following project:

#### **PROJECT NAME: RM of Rosedale – Water Pipeline Extensions 2019**

(b) The following is a brief description of the Work required for the project:

# The supply and installation of approximately 350m of pressure pipeline, two (2) service connections and related appurtenances in the Rural Municipality of Rosedale.

Details of the scope of Work required for the project are set out in the project Specifications.

#### 2. <u>Project Specifications</u>

(a) All work shall conform to the MWSB Standard Construction Specifications. Refer to MWSB website:

www.mbwaterservicesboard.ca

#### 3. <u>Submission Deadline and Address</u>

- (a) All bidders shall submit the completed tender form in a sealed envelope, clearly marked on the outside with the name and address of the Bidder and "RM of Rosedale Water Pipeline Extensions" no later than **October 4, 2019 at 12:00 noon**.
- (b) Tenders must be delivered to the following address:

Rural Municipality of Rosedale 282 Hamilton Street Box 100 Neepawa, MB R0J 1H0

#### 4. <u>Inquiries</u>

(a) All inquiries with respect to the proposed work shall be directed to the Owner:

Rural Municipality of Rosedale Attention to: Kara Sylvester, Chief Administrative Officer 282 Hamilton Street Box 100 Neepawa, MB R0J 1H0 Phone: (204) 476-5414

- (a) The Bidder must complete the Tender Form (using Form No. 3A), making all required entries.
- (b) No change shall be made in the wording of the Tender Form.
- (c) The Tender Form must be signed and dated by the Bidder. The name and official capacity of the person(s) signing the Tender Form must be printed below the signature(s).

#### 6. <u>Schedule of Prices</u>

- (a) Bidders must complete the Schedule of Prices (using Form No. 3B) by showing:
  - (i) a unit price for each item for which a quantity is given;
  - (ii) a lump sum price for each lump sum item given; and
  - (iii) the total Tender price.
- (b) Prices shall be quoted in Canadian funds.
- (c) The unit or lump sum prices quoted shall be <u>all inclusive</u>, and shall include: (i) the cost of the various items of Work as set forth in the Contract; (ii) the cost to furnish all Material (except as otherwise provided in the Contract); (iii) the cost to furnish all Plant, labour, transportation and incidentals necessary for the proper completion of the Work which the Contractor is required to do in accordance with the terms and conditions of the Contract; and (iv) all insurance, Worker's Compensation, vacation pay, custom duties, provincial sales tax, excise taxes (except the Federal Goods and Services Tax (G.S.T.) and all other charges, costs and assessments. G.S.T. shall be identified separately in the space provided in the Schedule of Prices.
- (d) Bidders acknowledge that the quantities shown on the Schedule of Prices are estimates only. The actual quantities may be considerably greater or considerably less than the quantities shown on the Schedule of Prices. Separate prices must be submitted for each item set forth on the Schedule of Prices.

## 7. <u>Acceptance of Tender</u>

(a) The Owner reserves the right to reject any or all tenders, to waive defects, to accept any tender or to accept any offer which they may consider to be in the best interest of the Owner.

## **INSURANCE, PERFORMANCE SECURITY AND SAFETY REQUIREMENTS**

The Bidder must provide the Owner with the documents as described herein, within eight (5) calendar days after receiving the acceptance letter from the Owner:

- 1. <u>Insurance</u>: Except as otherwise expressly provided in the Tender Documents, the Contractor shall, at the Contractor's expense, maintain the following insurance:
  - (a) <u>Wrap-Up Liability Insurance</u>
    - i. This policy shall provide for coverage against claims for personal injury, bodily injury or death, or damage to third party property as a result of the construction of the project, with minimum limits of coverage of \$2,000,000 per occurrence.
    - ii. This policy shall be project specific (i.e. provide single project coverage), and provide coverage for the Contractor and all Subcontractors involved in the Work, as well as the Rural Municipality of Rosedale, and their officers, employees and agents.
    - This policy shall be endorsed as necessary to cover products; completed operations; contingent employer's liability, and including shoring, blasting, excavating, underpinning, demolition, pile driving and caisson work, work below ground surface, tunneling and grading, as applicable. The coverage shall also include cross liability, premises and operations, blanket contractual, extended bodily injury, broad form property damage and non-owned automobile liability.
  - (b) <u>Builders' Risk Insurance</u>
    - i. This policy shall provide for all risks coverage at full replacement cost for all property relating to the project for an amount not less than the total estimated construction cost of the project.
    - ii. This policy shall remain in effect until ten (10) calendar days after Substantial Performance of the Work.
    - iii. This policy shall be in the joint names of the Owner, the Contractor and all Subcontractors involved in the Work, and shall provide that, in the case of a loss or damage, payment shall be made to the Owner and The Contractor as their respective interests may appear.
  - (c) <u>Automobile Liability Insurance</u>
    - i. This insurance shall provide coverage for automobile public liability and property damage on all licensed vehicles owned or operated by the Contractor, its Subcontractors, or any of their officers, employees or agents under the Contract and used in the performance of the Work, with minimum limits of coverage of \$2,000,000 per vehicle.
  - (d) <u>Contractor's Equipment Insurance</u>
    - i. The Contractor shall be responsible for insuring construction machinery and equipment used by the Contractor in the performance of the Work.

<u>Insurers</u>: The policies required shall be underwritten by insurers acceptable to the Owner.

<u>Period of Insurance</u>: Unless otherwise stipulated, the policies shall be effective from the date of commencement of Work and shall be maintained until the day of issue of the Owner's certification of Final Completion, and in the case of completed operations coverage and claims-made based policies for a period of at least twenty-four (24) months following completion of all Work under the Contract.

<u>Notification</u>: The insurance policies must include a provision that thirty (30) days prior written notice shall be given by the insurer to the Owner in the event of any material change in, cancellation of, expiration of coverage or amendment restricting coverage specific to the Contract.

<u>Indemnification</u>: The insurance coverage required shall in no way limit the Contractor's obligations under the Contract. Any additional coverage the Contractor may deem necessary to fulfill the Contractor's obligations under the Contract shall be at the Contractor's own discretion and expense.

<u>Evidence of Insurance</u>: The Bidder shall provide the Construction Manager with Certificates of Insurance or certified copies of the Wrap-Up Liability, the Builders' Risk and the Automobile Liability policies as evidence of the required insurance.

## 2. <u>Workers Compensation</u>

<u>Workers Compensation Board of Manitoba</u>: The Contractor shall be registered with the Workers Compensation Board of Manitoba (even when such registration is not required by *The Worker's Compensation Act* (Manitoba). The Contractor shall maintain such coverage in good standing throughout the term of the Contract.

<u>Evidence of Workers Compensation Board Coverage:</u> The Bidder shall provide a clearance letter from the Worker's Compensation Board of Manitoba as written evidence that the Bidder is registered and in good standing with the Workers Compensation Board of Manitoba. A clearance letter may be obtained online at the Worker's Compensation Board of Manitoba website at: <u>http://www.wcb.mb.ca/clearances</u>. The clearance letter must be dated no earlier than the issue date of the Tender.

## 3. <u>Performance Security</u>

<u>Obligation to Provide Performance Security</u>: The Contractor shall, at its own expense, provide and maintain performance security until the expiration of the warranty period in the form of:

- (a) a performance bond of a company registered to conduct the business of a surety in Manitoba, in the form attached to the Tender Documents (Form No. 3D Performance Bond), in the amount of fifty percent (50%) of the Contract Price; and
- (b) a labour and materials payment bond of a company registered to conduct the business of surety in Manitoba, in the form attached to the Tender Documents (Form No. 3E - Labour and Materials Payment Bond), in the amount of fifty percent (50%) of the Contract Price.

<u>Evidence of Performance Security</u>: The Bidder shall provide the Owner with the required performance bond and labour and material payment bond as evidence of the required performance security.

## 4. <u>Construction Schedule</u>

The Bidder shall provide a construction schedule which outlines the Bidder's plan for completing the Work. The Bidder should include details about the sequencing and timing of the major activities of the Work in the schedule.

All dates and time periods in the construction schedule shall be consistent with the dates and time periods as specified in the Tender Form and the Special Provisions.

#### 8. <u>Site Safety Plan</u>

The Bidder shall prepare and submit a site safety plan that meets the requirements of *The Workplace Safety and Health Act*. This plan shall include but is not limited to all items listed below:

- (a) Hazard/Risk Assessment Practices and Procedures, including planned site safety inspections and accident/incident investigation procedures; and
- (b) Emergency Response Plan and Procedures.

## TENDER FORM

Project Name	RM of Rosedale –Water	Pipeline Extensions 2019	
<u>Submission</u> <u>Deadline</u>	Date: October 4, 2019 Time: Before 12:00 p.m.	prevailing Neepawa time	
<u>Bidder</u>			
	Name of Bidder		
	Street		
	City	Province	Postal Code
(mailing address if different)	Street or P.O. Box		
	City	Province	Postal Code
Contact Person	The Bidder hereby authorizes the following contact person to represent Bidder for purposes of the Tender.		
	Contact Person	Title	
	Telephone Number	Facsimile Number	
	Email Address:		
<u>Offer</u>	•	to perform the Work in account of the Bidder, as set of	
<u>Tender Documents</u>	deemed to be incorpor	the Tender Documents in trated in and shall form a all parts are necessarily attact.	part of this Tender

<u>Time to Complete</u> <u>the Work</u>	In accordance with GC:10 of the General Conditions, the Bidder agrees to achieve Substantial Performance:
	by November 15, 2019
<u>Liquidated</u> <u>Damages</u>	The Bidder acknowledges and agrees that if it fails to achieve Substantial Performance in accordance with the date specified in the Contract, the Bidder will be required to pay the Rural Municipality of Rosedale the following amounts per Working Day as liquidated damages for each and every Working Day which the failure continues:
	Liquidated Damages: <b>\$500</b> per working day.
<u>Signatures</u>	In witness whereof the Bidder or the Bidder's authorized official or officials have
	signed this day of, 2019.
	(seal)

Signature of Bidder or Bidder's Authorized Official or Officials

(Print name and official capacity of individual whose signature appears above)

#### ACCEPTANCE

The RURAL MUNICIPALITY OF ROSEDALE hereby accepts the above Tender submitted by the Bidder,

\_\_\_\_\_ (hereinafter, called the "Contractor") for

Project Name: **RM of Rosedale – Water Pipeline Extensions 2019** Project Description: **The supply and installation of approximately 350 metres of pressure pipeline, two (2)** service connections and related appurtenances in the Rural Municipality of Rosedale.

and agrees that such acceptance shall constitute the binding Contract between the Rural Municipality of Rosedale and the Contractor for the Work.

The RURAL MUNICIPALITY OF ROSEDALE hereby confirms that the Contract Price for the Work is: \$\_\_\_\_\_\_.

The RURAL MUNICIPALITY OF ROSEDALE authorizes the Contractor to commence the Work on: \_\_\_\_\_, 20\_\_\_\_.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

FOR THE RURAL MUNICIPALITY of ROSEDALE:

\_\_\_\_\_(seal)

Signature

Print Name and Title

## **SCHEDULE OF PRICES**

DESCRIPTION OF WORK	ESTIMATED QUANTITIES	UNIT	UNIT PRICE	TOTAL
1. Pressure Pipeline				
a. 50mm ø	350	m		
b. 38mm ø Service Pipe	150	m		
2. Connections				
a. 50mm ø to existing 150mm ø pipeline c/w tapping sleeve and 50mm ø Gate Valve	1	Each		
b. 38mm ø service to existing 150mm ø pipeline	1	Each		
3. Crossing (Encased)				
a. Highway/Provincial Road				
i. PR 471 - 50mm ø	1	Each		
4. Flushout Assemblies				
a. End of Line - 50mm ø	1	Each		
5. Curb Stop				
a. 38mm ø	2	Each		
6. Water Service Material Package c/w pressure reducing valve and dual check valve				
a. 38mm ø i. 4 USGPM (5/8" water meter)	2	Each		
Extra Work Allowance		Each		\$ 10,000
	Subtotal			\$
*PST must be included in unit prices.	Goods & Servic	es Tax (5%	of Subtotal)	\$
	TOTAL TEND	ER PRICE		\$

Name of Bidder

## BID BOND

#### KNOW ALL MEN BY THESE PRESENTS THAT:

	of			
(Name of Bidder)		(Place)	(the "Principal")	
				and
	of			
(Name of Surety)		(Place)	(the "Surety")	

as Surety, are held and firmly bound unto the Rural Municipality of Rosedale in the sum of ten percent (10%) of the total Tender price set out in the Tender hereinafter described, for the payment of which sum the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has submitted a Tender to the Rural Municipality of Rosedale dated the \_\_\_\_\_ day of \_\_\_\_\_, 2019

#### **Tender for:**

#### Project Name: **RM of Rosedale – Water Pipeline Extensions 2019**

Project Description: The supply and installation of approximately 350 metres of pressure pipeline, two (2) service connections and related appurtenances in the Rural Municipality of Rosedale.

as more fully set out in the Specifications referred to in the Tender Documents.

NOW THEREFORE the condition of this obligation is such that if the Tender of the Principal is not accepted, or if the said Tender is accepted, and the Principal, in accordance with the terms of the Tender, enters into a Contract with the Rural Municipality of Rosedale and furnishes the required performance security for guaranteeing the faithful performance, labour and materials of the Contract, this obligation shall be void, but otherwise shall remain in full force and effect.

SIGNED, SEALED AND DELIVERED the \_\_\_\_\_ day of \_\_\_\_\_, 2019

SIGNED, SEALED AND DELIVERED in the presence of

Witness

Principal

Signature

Witness

Surety

(seal)

(seal)

Signature

## AGREEMENT TO BOND

(to be attached to and form part of Bid Bond)

The Surety on the attached Bid Bond hereby undertakes and agrees with the **RURAL MUNICIPALITY OF ROSEDALE** to become bound as Surety for the Principal,

of

(Name of Bidder) (Place)

the Bidder to you on \_\_\_\_\_, 2019

#### **Tender for:**

Project Name: **RM of Rosedale – Water Pipeline Extensions 2019** Project Description: **The supply and installation of approximately 350 metres of pressure pipeline, two (2)** service connections and related appurtenances in the Rural Municipality of Rosedale.

In an amount equal to fifty percent (50%) of the Contract Price for the due and proper performance of the Work shown and described in the Request for Tenders, if our Principal's Tender is accepted by you, such Performance Bond to be maintained and continue in full force and effect until the expiration of the warranty period; and

In an amount equal to fifty percent (50%) of the Contract Price to be held in trust for the use and benefit of claimants of labour and materials used in the performance of the Work shown and described in the Request for Tenders, if our Principal's Tender is accepted by you, such Labour and Material Bond to be maintained and continue in full force and effect until the expiration of the warranty period.

The Performance and Labour and Material Bonds shall be in the forms specified in the Tender Documents.

It is a condition that this Agreement to Bond shall become null and void if the Performance and Labour and Material Bonds mentioned above are not required from our Principal within sixty (60) calendar days following the Submission Deadline.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind or matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of sureties to the contrary notwithstanding.

SIGNED AND SEALED this	dav of	. 2019
	0.01	,====

Surety

\_\_\_\_\_(seal)

Signature

#### PERFORMANCE BOND

BOND NO	\$
KNOW ALL MEN BY THESE PRESENTS THAT	
of	
(Name of Principal)	(Place)
	(the "Principal")
and	
of	
(Name of Surety)	(Place)
•	(the "Surety"),
are held and firmly bound unto the Run	al Municipality of Rosedale in the sum of Dollars (\$),
· 1	Municipality of Rosedale or its successors or assigns, e Surety bind themselves, their heirs, executors,
WHEREAS the Principal has entered into a written the day of, 2019	contract with the Rural Municipality of Rosedale dated
<b>Tender for:</b> Project Name: <b>RM of Rosedale – Water Pipeline Exter</b> Project Description: <b>The supply and installation of a</b>	nsions 2019 Approximately 350 metres of pressure pipeline, two (2)

Project Description: The supply and installation of approximately 350 metres of pressure pipeline, two (2) service connections and related appurtenances in the Rural Municipality of Rosedale.

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE, the Condition of the above obligation is such that if the Principal shall:

- (a) carry out and perform the Contract and every part in the manner and within the times set forth in the Contract and in accordance with the terms and conditions specified in the Contract;
- (b) perform the Work in a good, proper workmanlike manner;
- (c) make all the payments whether to the Rural Municipality of Rosedale or to others as provided;
- (d) in every respect comply with the obligations and perform the covenants contained in the Contract;
- (e) indemnify and save harmless the Rural Municipality of Rosedale against and from any and all loss, damages, costs, claims and demands of every description as set forth in the Contract, and from all penalties, assessments, claims, actions for loss, damages or other compensation whether arising under *The Workers Compensation Act*, or any other Act or otherwise arising out of or in any way connected with the performance or non-performance of the Contract or any part thereof during the term of the Contract and the warranty period provided for therein.

THEN THIS OBLIGATION SHALL BE VOID, but otherwise shall remain in full force and effect. The Surety shall not, however, be liable for a greater sum than the sum specified above.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as Principal, and that nothing of any kind of matter whatsoever that will not discharge the Principal shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of sureties to the contrary notwithstanding.

IN WITNESS WHEREOF, the Principal and the Surety have signed and sealed this bond on this \_\_\_\_\_ day of \_\_\_\_\_\_, 2019

SIGNED, SEALED AND DELIVERED in the presence of

Witness

Principal

\_\_(seal)

Witness

\_(seal)

Surety

## LABOUR AND MATERIAL PAYMENT BOND

BOND NO. \_\_\_\_\_

\$

**Note**: This Bond is issued simultaneously with another Bond in favour of the Rural Municipality of Rosedale conditioned for the full and faithful performance of the Contract.

KNOW ALL MEN BY THESE PRESENTS, that \_\_\_\_\_ as principal (hereinafter called the "Principal"), and

\_\_\_\_\_\_\_, as surety (hereinafter called the "Surety"), are held and firmly bound unto the Rural Municipality of Rosedale, as the Trustee for the use and benefit of the Claimants (as defined herein), and each of their heirs, executors, administrators, successors and assigns, in the sum of \_\_\_\_\_\_ Dollars (\$\_\_\_\_\_\_) of lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

WHEREAS the Principal has entered into a written contract with the Rural Municipality of Rosedale, dated the \_\_\_\_\_ day of \_\_\_\_\_, 2019

Project Name: **RM of Rosedale – Water Pipeline Extensions 2019** 

Project Description: The supply and installation of approximately 350 metres of pressure pipeline, two (2) service connections and related appurtenances in the Rural Municipality of Rosedale.

which is by reference made part hereof and is hereinafter referred to as the "Contract".

NOW THEREFORE the condition of this obligation is such that, if the Principal shall promptly make payment to all Claimants, for all labour and material used or reasonably required for use in the performance of the Contract, then this obligation shall be void, otherwise it shall remain in full force and effect, subject, however, to the following conditions:

- (1) A Claimant for the purpose of this Bond is defined as one having a direct contract with the Principal for labour, material, or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract provided that a person, firm or corporation who rents equipment to the Principal to be used in the Performance of the Contract under a contract which provides that all or any part of the rent is to be applied towards the purchase price thereof, shall only be a Claimant to the extent of the prevailing industrial rental value of such equipment for the period during which the equipment was used in the performance of the Contract. The prevailing industrial value of equipment shall be determinate, insofar as it is practical to do so, in accordance with and in the manner provided for in the latest revised edition of the publication of the Manitoba Heavy Construction Association titled "Annual Directory and Equipment Rental Rates Guide" published prior to the period during which the equipment was used in the performance of the performance of the Contract;
- (2) The Principal and the Surety, hereby jointly and severally agree with the Rural Municipality of Rosedale, as Trustee, that every Claimant who has not been paid as provided for under the terms of

their contract with the Principal before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's work or labour was done or performed or materials were furnished by such Claimant, may as a beneficiary of the trust herein provided for, sue on this bond, prosecute the suit to final judgement for such sum or sums as may be justly due to such Claimant under the terms of their contract with the Principal, and have execution thereon. Provided that the Rural Municipality of Rosedale is not obliged to do or take any act, action or proceeding against the Surety on behalf of the Claimants, or any of them, to enforce the provinces of this Bond. If any act, action or proceeding is taken either in the name of the Rural Municipality of Rosedale or by joining the Rural Municipality of Rosedale as a party to such proceeding, then such act, action or proceeding, shall be taken on the understanding and basis that the Claimants or any of them, who take such act, action or proceeding shall indemnify and save harmless the Rural Municipality of Rosedale against all costs, charges and expenses or liabilities incurred thereon and any loss or damage resulting to the Rural Municipality of Rosedale by reason thereof. Provided still further that, subject to the foregoing terms and conditions, the Claimants, or any of them, may use the name of the Rural Municipality of Rosedale to sue on and enforce the provisions of this bond;

- (3) No suit or action shall be commenced hereunder by any Claimant;
  - (a) unless such Claimant shall have given written notice within the time limits hereinafter set forth to each of the Principal, the Surety and the Rural Municipality of Rosedale, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal, the Surety and the Rural Municipality of Rosedale, at any place where an office is regularly maintained for the transaction of business by such persons, or served in any manner in which legal process may be served in the Province of Manitoba. Such notice shall be given:
    - (i) in respect of any claim for the amount or any portion of thereof, required to be held back from the Claimant by the Principal, under either the terms of the Claimant's contract with the Principal, or under The Builders' Liens Act applicable to the Claimant's contract with the Principal, whichever is the greater, within one hundred and twenty (120) days after such Claimant should have been paid in full under the Claimant's contract with the Principal;
    - (ii) in respect of any claim other than for the holdback, or portion thereof, referred to above, within one hundred and twenty (120) days after the date upon which such Claimant did, or performed, the last of the work or labour or furnished the last of the materials for which such claim is made under the Claimant's contract with the Principal;
  - (b) after the expiration of one (1) year following the date on which the Principal ceased work on the Contract, including work performed under the guarantees provided in the Contract; and
  - (c) other than in a court of competent jurisdiction in the Province of Manitoba and not elsewhere, and the parties hereto agree to submit to the jurisdiction of such court.

(seal)

- (4) Any material change in the contract between the Principal and the Rural Municipality of Rosedale shall not prejudice the rights or interest of any Claimant under this bond, who is not instrumental in bringing about or has not caused such change;
- (5) The amount of this bond shall be reduced by, and to the extent of any payment or payments made in good faith, and in accordance with the provisions hereof, inclusive of the payment by Surety of Builders' Liens which may be filed on record against the subject matter of the Contract, whether or not claim for the amount of such lien be presented under and against this bond;
- (6) The Surety shall not be liable for a greater sum than the specified penalty of this bond.

IN WITNESS WHEREOF, the Principal and the Surety have signed and sealed this bond on the \_\_\_\_\_\_ day of \_\_\_\_\_\_, 2019

SIGNED, SEALED AND DELIVERED in the presence of

Witness

Principal

Witness

\_\_\_\_(seal)

Surety

<u>PART 1</u>	GENERAL
1.01 DOCUMENTS	In the event of conflict between these Special Provisions and the Plans or the other Sections of the Specifications, the Special Provisions shall govern.
	The Contractor shall take note that the latest version of The Manitoba Water Services Board <b>Standard Construction Specifications</b> with reference made to specific Divisions and Sections outlined in the Table of Contents shall apply to and be part of this Section and part of the Contract Documents. The Contractor shall make reference to the latest version of the Standard Construction Specifications for the proper execution of the Contract.
1.02 DESCRIPTION OF WORK	The Contractor shall supply all the necessary materials, overhead, products, labour, tools, equipment, services and all other things necessary for, and incidental to, the satisfactory performance and completion of all work as shown on the Plans and hereinafter specified.
1.03 COMMENCEMENT OF WORK	The Owner expects the Contractor to commence work on the project in accordance to General Conditions Section 10.3.
1.04 PERMITS LICENSES, REGULATIONS & ACTS	The Contractor shall be responsible for obtaining and paying, for any and all permits or licenses as may be required for any portion of this contract. The Contractor shall comply with all Municipal and Provincial Government regulations as they apply to the work of this contract.
ACIS	Prior to commencement of construction the Contractor is responsible to contact the following:
	<ol> <li>Manitoba Infrastructure Contact: Steven Bray (204) 572-1264 A/ Regional Planning Technologist Box 690, 257-Industrial Road Dauphin, MB R7N 3B3</li> </ol>
	<ul> <li>Whitemud Watershed Conservation District Contact: Chris Reynolds (204) 476-5019 Box 130, 41 Main Street East Neepawa, MB R0J 1H0</li> </ul>
	3) Manitoba Hydro
	4) Bell MTS

1.05 QUANTITY REVISIONS	The Owner reserves the right to: increase or decrease the length of pipeline and service pipe; re-route the pipeline; alter pipe sizes; increase or decrease the number of gate valves, pipeline crossings, and water service material packages. In the event that these rights are exercised, the Contract Unit Prices quoted on the Tender Form shall remain unchanged.
1.06 EXISTING WORKS	The Contractor shall observe all Federal, Provincial and Municipal Regulations and By-Laws regarding construction in proximity to any utilities or other structures.
	The Contractor shall be responsible for determining the location of all utilities or other structures and shall pay for all services supplied for locating such utilities or other structures. The Contractor will be held responsible for damage to, and for maintenance and protection of, existing structures and utilities.
	Where existing utilities or other works are encountered or may be affected, the Contractor shall proceed under the direction of the respective Municipal Department, electric power agency, telephone agency, or other agencies. Any utility that requires moving or temporary relocation solely to facilitate the Contractor's operations shall be removed and replaced at the Contractor's expense, except where shown otherwise on the Plans.
1.07 WORKS ON PRIVATE PROPERTY AND RESTORATION	Unless otherwise indicated by the Owner, all service connections shall be installed into the residence. The Contractor shall co-ordinate his work with the individual landowners prior to installing water service pipe, curb stop, and water service connection package.
	The Contractor shall restore all areas and properties affected by his work operations. Any public or private utilities damaged by the Contractor shall be repaired at the Contractor's expense.
	It is the Contractor's responsibility to identify and record existing damage or deficiencies to buildings and grounds which may affect the work and the record of existing damages or deficiencies shall be provided to the Rural Municipality of Rosedale prior to commencing construction.
PART 2	PRODUCTS
2.01 GENERAL	The Contractor shall supply all the products required for the execution of this Contract. All materials supplied by the Contractor shall be new and free from defects. All products supplied for this contract shall conform to the MWSB Standard Construction Specifications and Listing of Approved Products.
2.02 PIPE DIMENSIONS	All pipe sizes specified or noted on the Plans are for I.P.S. (Iron Pipe Size) standard pipe diameter.

2.03	All pipe and associated fittings shall conform to the following schedule:
PIPE	PRESSURE PIPELINE: shall be High Density Polyethylene PE3608 or PE4710 DR17
	SERVICE PIPE: shall be High Density Polyethylene PE3608 or PE4710 DR17 Series 100.
	ENCASEMENT PIPE: for PTH or PR Crossings shall conform to MWSB Specification Section 027070, Clause 2.4 and shall be PVC Series 160 pipe or High Density Polyethylene PE 3608 or PE 4710 DR17.
	High density Polyethylene pipe identification shall be placed on each length of pipe and shall include pipe size, manufacturer's trademark or name, date of manufacture, series or DR rating, Canadian Standards Association, Water Quality Association (WQA), or NSF International Certification complete with certification trademark logo and the CSA; ASTM specification standard to which the pipe is certified.
2.04 BEDDING	The Owner may approve the excavated materials to be used for bedding the pipe provided that the bedding material is in conformance with MWSB Specification Section 022180 Clause 2.2. If the bedding material does not meet the specification as determined by the Owner, then the Contractor shall install the pipe in accordance with MWSB Specification Section 022180 Clause 3.6 Class 'B' Bedding or as otherwise determined by the Owner.
2.05 BACKFILL	Pressure pipeline backfill shall be as per MWSB Specification Section 022180 Clause 2.4.1.
2.06 SERVICE SADDLES	Service saddles shall be AWWA approved for IPS pipe. Service saddles shall be all stainless steel wide band Romac 306 or Robar 2616 or approved equal. Each saddle shall be suitable for the type and size of pressure pipeline on which it is installed.
2.07 HIGH DENSITY POLYETHYLENE PIPE FITTINGS	Polyethylene fittings shall be as per MWSB Specifications Section 027060. High Density Polyethylene Electrofusion fittings shall be manufactured in compliance with ASTM F-1055 standard for electrofusion type polyethylene fittings for controlled outside diameter polyethylene pipe and tubing. Fittings shall be tested in compliance with ASTM D-2513 and ASTM F-1055. Resin shall be PE3608 or PE4710 virgin material that complies with ASTM D-1248 and ASTM D-3350. The fittings shall have a NSF Standard 14 listing and a Plastic Pipe Institute (PPI) rating. Electrofusion fittings shall be rated for a maximum operating pressure of 165 psi. Fittings shall be manufactured with an integral identification resistor that automatically sets the fusion time on the Electrofusion Processor.

#### SPECIAL PROVISIONS

2.08 PVC PIPE FITTINGS	All threaded or socket weld PVC pipe fittings shall be minimum PVC Schedule 80 pipe conforming to ASTM Specifications D 2407-76 and suitable for use with bronze, stainless steel, nylon or plastic fittings.
2.09 VALVES AND TAPPING SLEEVE	A) PIPELINE GATE VALVES – shall be as per MWSB Standard Construction Specification Section 027060 Clause 2.4 and shall conform to AWWA C-509 Standard for Resilient Seat Gate Valves and be suitable for 1,000 kPa (150 psi) service and shall have a non-rising stem.
	B) CURB STOPS/BOX – shall be compression type 38mm ø service Mueller "H-10283" Mark II Oriseal (non-draining type) or approved equal, complete with associated fittings as described in Section 027020 Clause 2.3 and shown on page 7 of 9 of the MWSB Standard Construction Specifications. The curb stop box shall have a polymer plastic boot and the operating rod shall be stainless steel complete with brass or stainless steel cotter pin. The top of the curb stop box shall be marked with a "W" for water service pipe. Wood plank bases for curb stops shall conform to MWSB Specification Section 027020 Clause 2.4.
	C) RESIDENTIAL BALL VALVES – shall have a bronze body, follower and bronze, brass, or chrome plated ball, Bumna-N seal and seat, threaded, compression or solder-type joints, and a hand operating lever.
	D) DUAL CHECK VALVES – shall be 19mm bronze female threaded, in line dual check valve. The check valve shall be rated for operating at pressures up to 150 psi. Acceptable model is a Wilkins Model 700 dual check or approved equal.
	E) FLOW CONTROL VALVES – shall be 19mm Dole Model 4GC, (for 38mm service) bronze, threaded, minimum pressure rating of 150 psi and suitable for use in potable water systems.
	F) RESIDENTIAL PRESSURE REDUCING VALVE – shall be 19mm diameter Wilkins #70 pressure reducing valve or approved equal. The reducing valve shall have a replaceable cartridge with spring range of 25-75 psi and factory set at 50 psi with inlet pressure of up to 300 psi.
	G) TAPPING SLEEVE – shall be all stainless steel wrap around type complete with an integral outlet flange suitable for "wet tapping" Acceptable product is a Robar model 6606 tapping sleeve or approved equal.
2.10 FLUSHOUT ASSEMBLIES	<b>End-of-Line</b> Flushout Assemblies shall consist of, but not necessarily be limited to, rip rap, one gate valve, two $90^{\circ}$ elbow risers, to suit depth of burial as shown on the Plans and described in these Specifications.
2.11 WATER METERS	Residential water meters shall be supplied <b>by the Owner</b> and installed by the Contractor. Meters for 38mm ø service pipe size shall be Neptune T-10 Pro Read meters complete with encoder register and shall register in cubic metres.

2.12 RADIO READ TRANSCEIVER	The Radio Read Transceiver Unit will be supplied by the Owner and installed by the Contractor.
UNIT	The Contractor shall supply the cable from water meter to the Radio Read Transceiver Unit. Cable shall be as per MWSB Approved Products.
2.13 INSULATION	This Tender does not call for the use of insulation on the water pipelines and service connection lines. If in the opinion of the Owner, it is deemed necessary, below ground insulation shall conform to CAN/ULC S701 or CGSB-51-GP-20M Type 4 rigid extruded polystyrene foam HI-40 (Blue in colour) with a compression strength of 275 kPa as manufactured by DOW Chemical or approved equal (see detail page 31 of 34, MWSB Specification Section 027060).
2.14 MARKER POSTS	The Contractor shall supply and install marker posts as indicated on the Plans and affix information stickers supplied by the Owner.
2.15 THRUST BLOCKING	Shall be of concrete construction conforming to MWSB Standard Construction Specifications Section 027060, Clause 2.9. The Contractor shall note that thrust blocks are required for all pipelines installed and shall be made of TYPE 50 HS.
2.16 SEEDING	Seeding of areas affected by construction shall conform to MWSB Specification Section 024860.
PART 3	EXECUTION
PART 3 3.01 GENERAL	<b>EXECUTION</b> The Contractor shall execute the work under this Contract in accordance with the Plans and Specifications, to the satisfaction of the Owner, and as required by all respective codes and regulations currently in effect.
3.01	The Contractor shall execute the work under this Contract in accordance with the Plans and Specifications, to the satisfaction of the Owner, and as required by all
3.01 GENERAL 3.02 PROJECT	The Contractor shall execute the work under this Contract in accordance with the Plans and Specifications, to the satisfaction of the Owner, and as required by all respective codes and regulations currently in effect. The Contractor shall appoint a project manager/supervisor who has experience with this type of work and who has authority to speak on project related issues. The project manager shall work in conjunction and in close cooperation with the
3.01 GENERAL 3.02 PROJECT MANAGER 3.03 PERMITS &	The Contractor shall execute the work under this Contract in accordance with the Plans and Specifications, to the satisfaction of the Owner, and as required by all respective codes and regulations currently in effect. The Contractor shall appoint a project manager/supervisor who has experience with this type of work and who has authority to speak on project related issues. The project manager shall work in conjunction and in close cooperation with the Rural Municipality of Rosedale representative appointed to supervise the work. The Contractor shall obtain all required permits for the project. The Contractor shall also contact Manitoba Infrastructure, Bell MTS, and Manitoba Hydro a minimum of seventy-two (72) hours prior to commencing construction within their respective right-of-way limits to make arrangements for site supervision (if

#### SPECIAL PROVISIONS

	1.5.4 of Section 022180, Pipe Excavation, Bedding and Backfill. The Contractor shall use hand tools to expose existing buried works. Compacted select granular backfill shall be used within three metres of any existing utility works and shall be considered incidental to the work.
3.05 WORK ADJACENT TO EXISTING WORKS	The Contract may require the Contractor to work near existing structures; therefore, it shall be the Contractor's responsibility to work with the Municipality and homeowners. The Contractor shall take all precautions necessary to avoid damage to existing works. The Contractor shall co-ordinate the tie-in to existing pipelines with the Municipality a minimum of 48 hours prior to commencing construction.
3.06 LINE AND GRADE	The pipeline shall be installed at the location as staked out on the ground by the Owner, and in accordance with the typical details of pipeline installation and water service connections as shown on the Plans and described in the Contract Documents. Pipeline alignments may be altered by the Owner in the field to minimize/avoid damage to private property, culverts and utilities.
3.07 SITE PREPARATION	The Contractor may be required to strip or blade up to 100mm of existing topsoil in highway and provincial road ditches. The Owner shall designate and approve those areas, which shall be stripped. The topsoil shall be replaced following backfilling operations.
	Bushes, trees and other vegetation along the route may be removed, if required, to permit the installation of the work. Disposal of vegetation shall be done in a manner compatible with applicable regulations and in a manner satisfactory to the Rural Municipality of Rosedale.
3.08 DISPOSAL OF SCRAP MATERIAL	Disposal of scrap material shall be done in a manner compatible with applicable regulations and in a manner satisfactory to the Municipality.
3.09 DEPTH OF BURIAL	Minimum depth of burial for all buried piping shall be as per MWSB Specification Section 027060, Clause 3.1.2. Pipeline installed within Highway and Provincial Road right-of-ways shall be 2.5 m bury.
3.10 BACKFILL	Backfill and pipe bedding shall be as per MWSB Specification Section 022180 Clause 3.8.
	1. COMPACTED COMMON BACKFILL – shall be used through private driveways, approaches, and steep slopes.
	2. COMPACTED SELECTED GRANULAR BACKFILL – shall be used to backfill all trenches through asphalt paved, or oil treated roadways, gravel municipal roadways, and asphalt and concrete private driveways, and within three (3) metres of any existing works.
	3. BEDDING SAND – shall be used around water pipelines at connections to

existing pipelines, service connections, and around all valves.

4. COMMON BACKFILL – shall be used to backfill all other trenches.

3.11 Pipe installed under all existing highways (PTH/PR) under the jurisdiction of Manitoba Infrastructure shall be done by means of tunnelling and encasement pipe HIGHWAY, installation in accordance with MWSB Specification Section 027070. **RAILWAY** The Contractor may be allowed to open cut the crossing provided that he obtains prior AND PROVINCIAL approval and the co-operation of Manitoba Infrastructure. The Contractor shall **ROAD CROSSINGS** be responsible for permits, flagmen and total site restoration to the satisfaction of the Owner and in accordance with Manitoba Infrastructure Work Zone Traffic Control Manual (latest edition).

3.12 Municipal Road Crossings shall be done by means of tunnelling in accordance **MUNICIPAL AND** with MWSB Specification Section 027070 except that the encasement pipe will **ROAD CROSSINGS** not be required. The Contractor will be allowed to open cut the crossings provided he obtains prior approval from the Municipality. The Contractor shall be responsible for total site restoration to the satisfaction of the Municipality.

3.13 The Contractor shall restore private driveway and road approaches off Provincial Roads and Highways to original conditions. All gravel required for restoration of PRIVATE existing driveways and gravel roads and approaches shall be considered incidental DRIVEWAYS to this Contract. **GRAVEL ROAD AND APPROACHES** 

> Existing gravel on surfaces affected by the pipeline shall be removed prior to excavation and replaced subsequent to backfilling.

Flushout assemblies shall be supplied and installed in accordance with the MWSB Specification 027060 at the locations shown on the Plans or as directed by the **FLUSHOUT** Owner. The pipe shall be installed plumb. Flushouts shall be installed complete ASSEMBLIES with riprap and include all stainless steel nuts, bolts, and washers. See page 33 of 34 Section 027060 for details.

#### 3.15 **SERVICE PIPE CONNECTIONS**

(off PTH's & PR)

3.14

Service pipe shall be installed at the depth specified in Part 3.08 of this Section. Service pipe shall be tunnelled under the parking area. If trenching is required outside of the parking area, the backfill and bedding of the service pipe will adhere to Part 3.09 of this Section. The service connection trench shall be left in a neatly bladed condition. The trench shall be left mounded unless otherwise requested by the Owner or the landowner. Service pipe installation into the building shall be by tunnelling.

The Contractor will be held fully responsible for any construction damages to existing residential facilities resulting from installation of service connections.

\_

3.16 TUNNELLED SERVICE PIPE	Service pipes shall be tunnelled through municipal roadways. Tunnelled service pipe installation into builds shall be up to a maximum of 70 metres from the point of entrance into the building.
3.17 METER INSTALLATION	A typical water meter installation is shown on the Plans. The work shall include the installation of the meter, and transceiver unit and related appurtenances.
	The water meter shall be installed horizontally with the dial face positioned upward and located as close as possible to the outside foundation wall.
	The Contractor shall install the Radio Read Transceiver Unit in the upright position on the wall and close to the ceiling in the basement, or on the water meter as per manufacturer's recommendations. The water meters shall be connected with cable to the transceiver unit.
	Water meters shall be adequately supported in such a manner so as not to damage the water meter, pipe or fittings. Water meter support shall not be located under the frost plate of the meter.
	The Contractor shall submit to the Municipality the manufacturer's certificate from each meter installed with the location noted. A successful meter installation is complete when a valid meter reading is obtained and the plumbing does not leak.
	The Contractor is required to take one "before" and one "after" photograph for all meter installations. Photographs will be provided to the Rural Municipality of Rosedale at the end of the project on a CD or flash drive labelled by address.
3.18 PIPE INSULATION	The Contract does not call for pipe insulation. The Owner may determine that insulation is required to provide protection from frost. Insulation if requested by the Owner, shall be installed as shown in the "Pipe Installation Detail" Page 31 of 34, MWSB Specification 027060. The Contractor shall comply with the bedding requirements outlined on the detail and shall make certain that horizontal joint locations are staggered with vertical joint locations. Insulation, if required, will be paid for through Extra Work.
3.21 MARKER POSTS	<ul> <li>The Contractor shall supply and install marker posts as indicated on the Plans and affix Owner supplied information stickers at the following locations:</li> <li>Curb stops</li> <li>Gate valve installations</li> <li>Flushout installations</li> <li>PR/PTH crossing</li> </ul>
3.22 CULVERTS	The intent of this contract is to avoid damage or removal of existing culverts. If an existing culvert must be removed to facilitate pipeline installation, it shall be done in a manner, which will minimize damage to the culvert. The salvage and reinstallation of existing culverts shall be considered incidental to the work in this contract. If the Owner determines that a culvert is not salvageable, the Owner

shall supply the Contractor with a new culvert for reinstallation.

3.23 HYDROSTATIC TESTING & DISINFECTION	Hydrostatic testing and disinfection of the pipelines shall be done as outlined in MWSB Specification Section 027060 Clauses 3.19 and 3.21. Service pipe and curb stop shall be tested and disinfected as per MWSB Specification Section 027020 Clause 3.3.2 and may be undertaken coincident with the flushing and hydrostatic testing of the pipelines. Service lines from the curb stop to the meter shall be flushed and tested for a free chlorine residual prior to installation of the meter package. The Contractor can obtain water at his cost from the existing pipelines in the Municipality for filling, swabbing, flushing and testing
	Prior to, or in conjunction with, disinfection and hydrostatic testing, all pipelines (excepting 38mm ø water service pipe) shall be swabbed with 3 swabs placed at 60 metre intervals. Swabbing will be complete when the pipeline is clean and when the turbidity levels in the pipeline are less than or equal to that of the feed water.
	The Owner will sample and test water for HPC and Total Coliform and E-Coli counts (ie. Bacteriological testing). Tests must meet designated bacteriological limits for water pipelines (coliforms less than 1, HPC less than 10).
3.25 CLEAN-UP	The Contractor shall remove all equipment, surplus and waste materials from the site. Trenches shall be left in a neatly bladed condition. The trench shall be left mounded sufficiently to allow for the future settlement and consolidation of the excavated materials used to backfill the trench, unless otherwise requested by the Owner.
	The Contractor shall maintain and restore ditches to original grade and conditions. The Contractor shall re-seed any ditches or waterway crossings affected by construction and shall install the necessary erosion control measures as required by Manitoba Infrastructure or as directed by the Owner. All trenches within Manitoba Infrastructure right-of-ways shall be seeded in accordance with MWSB Specification, Section 024860 "Seeding".
	The Contractor shall restore and clean up construction areas as soon as possible after pipeline and service line installation.
3.26 SANITARY FACILITIES	The Contractor shall provide sanitary facilities for the workers on the project.
3.27 SAFETY	The Contractor shall supply all equipment required for the safety of the workmen at the site in accordance with Provincial Workplace, Safety and Health Regulations and Department of Labour and Immigration Requirements.
3.28 ORAL ARRANGEMENTS	In the case of misunderstandings or disputes or the interpretation of the Plans and Specifications, oral arrangements will not be considered. The Contractor must produce written authority from the Owner in support of his contentions and shall

advance no claim in the absence of such written authority.

3.29 ACCESS	The Contractor shall provide and maintain access to municipal and private roadways and private driveways. Access to local traffic shall not be interrupted for extended periods of time.
3.30 WARRANTY	The Contractor shall replace or repair, at his expense, any faulty material or workmanship supplied by him including site clean-up and restoration works which occur within a one-year period after substantial completion of the project.

PART 1

## **GENERAL**

1.01 OTHER CONTRACT DOCUMENTS

1.02 JOB CONDITIONS

1.03 ITEMS COVERED BY CONTRACT PRICES The General Conditions of the Contract and the other General requirements of Division 1 attached hereto shall apply to, and be part of this Section.

Items measured in lineal metres shall be measured to the nearest whole metre.

In addition to covering the cost of the various items of work for which the Contract Unit Price and Contract Lump Sum Prices are set forth in the Contract, the Contract Prices so set forth shall be held to cover, and shall cover the cost of furnishing all materials, plant, tools, equipment, labour, services, transportation and incidentals necessary for the execution of all things essential in the work required of the Contractor under the terms of the Contract, Plans and Specifications, and the observing, performing and keeping of all the terms, covenants and conditions of the Contract all of which shall be observed, performed and kept by the Contractor.

1.041. METHOD OF MEASUREMENT – Measurement for "PressurePRESSURE PIPELINE1. METHOD OF MEASUREMENT – Measurement for "PressurePipeline" as described in MWSB Specification 027060 shall be on the basis<br/>of the number of lineal metres of pipeline installed, measured horizontally<br/>on the ground along the centreline of the pipeline, to the nearest whole<br/>metre and acceptably installed, including the length through appurtenances,<br/>valves, crossings, waterways, etc.

BASIS OF PAYMENT - Payment for each class of "Pressure 2. Pipeline" shall be at the Contract Unit Price for each class of "Pipeline" measured as specified herein, which shall be payment in full for those operations described in MWSB Specification 027060, Special Provisions, and for those operations incidental to the work for which no price or prices or provisions for payment are included in the Contract. All pipeline site preparation, topsoil stripping and stock piling, tunnelling, excavation, bracing, shoring, pipe bedding, fittings, adaptors, flanges, nuts, bolts, and lubricants as are required to join pipe and appurtenances, backfill, cleanup, restoration works, seeding, swabbing, disinfection, testing, cost of water for filling and testing, removal and replacement of existing granular services, and all other items not specifically listed in the Contract Unit Prices shall be supplied and installed by the Contractor and shall be considered incidental hereto. The costs of unacceptable bacteriological, HPC/Total Coliform and E-Coli tests shall be paid by the Contractor. These costs shall include laboratory costs plus 10%.

1.05 CONNECTION	1. METHOD OF MEASUREMENT – Measurement for each "Connection" as described in MWSB Specification 027060 and 027020 and as shown on the Plans shall be based on the actual number of each class or size of connections acceptably installed.
	2. BASIS OF PAYMENT – Payment for each type of "Connection" shall be at the Contract Lump Sum Price for "Connection" as specified herein, which shall be payment in full for those operations described in Section 027060 and as shown on the Plans and for those operations incidental to the work for which no price or prices or provisions for payment are included in the contract. Lubricants, excavation, bedding, installation, thrust blocks, tapping sleeve, gate valve, service saddle, fittings, backfilling and testing shall be considered incidental to the work.
1.06 CROSSING (ENCASED)	1. METHOD OF MEASUREMENT – Measurement of each class and size of "Crossing (Encased)" as described in the Special Provisions and MWSB Specification Section 027070 and as shown on the Plans shall be based on the number of each class of crossing acceptably installed.
	2. BASIS OF PAYMENT – Payment for "Crossing (Encased)" shall be at the Contract Unit Price for each class and size of "Crossing (Encased)" measured as specified herein, which shall be payment in full for those operations incidental to the work for which no price or prices or provisions for payment are included in the Contract and shall include tunnelling and encasement pipe, including tunnelling under any cables, spares, erosion control, flagmen and permits. Payment for "Crossing (Encased)" is in addition to Item 1.04 of this Section "Pressure Pipelines".
1.07 FLUSHOUT ASSEMBLIES	1. METHOD OF MEASUREMENT – Measurement for each size of "Flushout Assemblies" described in the Special Provisions, MWSB Specification Section 027060, and as shown on the Plans shall be based on the actual number of each size supplied and acceptably installed.
	2. BASIS OF PAYMENT – Payment for each size of "Flushout Assemblies" shall be at the Contract Unit Price for each type of flushout assembly measured as specified herein which shall be payment in full for those operations described in the Special Provisions, MWSB Specification Section 027060 Pressure Pipelines, and as shown on the Plans for which no price or prices or provisions for payment are included in the Contract. The supply and installation of couplings, adaptors, gaskets, lead, gate valves, stems and boxes, box covers, all stainless steel nuts, bolts and washers, lubricants, tees, elbows, plugs, risers, excavation, bedding, backfill, rip rap, cribbing, shoring, bracing, thrust blocks, concrete block under valve, markers and testing shall be considered incidental to the work.

1.08	1. METHOD OF MEASUREMENT – Measurement for each size of
CURB STOP	"Curb Stop" described in the Special Provisions and as shown on the Plans shall be based on the actual number of each size as may be supplied and acceptably installed.
	2. BASIS OF PAYMENT – Payment for each size and class of "Curb Stop" shall be at the Contract Unit Price for each size and class of "Curb Stop" installed and measured as specified herein, which shall be payment in full for those materials and operations incidental to the work for which no price or prices or provisions for payment are included in the Contract. The supply and installation of fittings, wood plank, insert adaptors, curb stop and box, stainless steel rod, valve marker and bedding shall be considered incidental to the work.
1.09 WATER SERVICE MATERIAL PACKAGE	1. METHOD OF MEASUREMENT – Measurement of each "Water Service Material Package" as described in the Special Provisions and MWSB Specification 027020 and as shown on the Plans shall be based on the actual number of water service connection material packages supplied and acceptably installed.
	2. BASIS OF PAYMENT – Payment for each "Water Service Material Package" shall be at the Contract Unit Price for each "Water Service Material Package" measured as specified herein, which shall be payment in full for those operations described in the Special Provisions, MWSB Specification Section 027020 and as shown on the Plans and for those operations incidental to the work for which no price or prices or provisions for payment are included in the Contract. The installation of Owner supplied water meter c/w transmitter unit, and the supply and installation of supports, fittings, adaptors, stainless steel inserts, gaskets, gate valves, dual check valves, residential pressure reducing valves, flow control valves, wire from meter to transceiver, foundation repairs and installation photos shall be considered incidental to the work.