4553P Supply and Installation of CCTV and Inspections Equipment

1. Introduction

The City of Richmond ("the "City") requires a consultant (the "Consultant") to supply and install CCTV and inspections equipment including the hardware, software, training and support (the "Equipment").

The objective of this Request for Proposal is to provide the City with qualified proponents capable of carrying out the work herein defined. The subsequent proponent submissions will form the basis for evaluation, interview and selection.

2. Definitions

2.1 Throughout this Request for Proposal the following definitions apply:

a) "BC Bid" means the electronic tendering service maintained by the Province of British Columbia located online at www.bcbid.ca, or any replacement website;

b) "City" means the City of Richmond, British Columbia;

c) "Contract" means the written agreement resulting from this Request for Proposal executed by the City and the Contractor for the Work;

d) "Contractor" means the Successful Proponent to this Request for Proposal who enters into a written Contract with the City to perform and to oversee the Work and

e) "Proposal" means a proposal submitted by a Proponent in response to this Request For Proposal;

f) "Proponent" means an individual or a company that submits, or intends to submit, a Proposal in response to this Request for Proposal;

g) "RFP" or "Request for Proposals" means this request for proposals, inclusive of all appendices and any addenda that may be issued by the Owner;

h) "Submission" means a proposal submitted by a Proponent in response to this RFP;

i) "Successful Proponent" means the same as "Contractor"

j) "Work" means the provision of all labour, services, material and equipment, and any action as necessary for the Preferred Proponent to complete and perform its obligations in accordance with the terms and conditions of the Contract.

3. Submission Details

3.1 Three (3) copies of proposals marked **"4553P – CCTV and Inspections Equipment"** addressed to the Purchasing Section, will be received at the Information Counter, Main Floor, Richmond City Hall, 6911 No. 3 Road, Richmond BC V6Y 2C1, until **November 16, 2011 at 3:00 pm local time**. Submissions received after this time will be returned to the sender.

4. Pre-Bid Meeting

Note: There will be a bidders information meeting conducted on **October 26, 2011 at 10:00 am** with sign-in attendance forms. Potential bidders are asked to meet in the Works Yard Training Room located at the City's Public Works Yard located at 5599 Lynas Lane, Richmond, BC (one story white building). The City strongly encourages all potential Bidders to attend this session. No other sessions will be organised or arranged for this project.

5. Enquiries

5.1 Clarification of terms and conditions of the proposal process shall be directed to:

Purchasing
Sumita Dosanjh
Buyer II - Contracting Specialist E-mail: purchasing@richmond.ca
Purchasing Section
City of Richmond

5.2 The City, its agents and employees shall not be responsible for any information given by way of oral or verbal communication.

5.3 The City will only respond to questions that are submitted in writing. Any questions that are received and answered by City of Richmond staff that affect the Proposal Process, any interpretation of, additions to, deletions from, or any other corrections to the Request for Proposal document, may be issued as written addenda by the City of Richmond. It is the sole responsibility of the potential Proponents to check with the following websites to ensure that all available information has been received prior to submitting a proposal:

a) City of Richmond: http://www.richmond.ca/busdev/tenders.htm

b) BC Bid: http://www.bcbid.gov.bc.ca/open.dll/welcome?language=En

5.4 Enquiries will be received up until **Friday, November 4, 2011 at 3:00 pm local time.**

6. Terms of this Request for Proposal

6.1 Proposals shall be open for acceptance for 90 days following the submission closing date.

6.2 The City reserves the right to cancel this Request for Proposal for any reason without any liability to any proponent or to waive irregularities at its own discretion.

6.3 Proposals may be withdrawn by written notice only provided such notice is received at the office of the City's Purchasing Section prior to the date/time set as the closing time for receiving proposals.

6.4 Except as expressly and specifically permitted in these instructions, no Proponent shall have any claim for any compensation of any kind whatsoever, as a result of participating in the RFP, and by submitting a proposal each proponent shall be deemed to have agreed that it has no claim.

6.5 Proponents are advised that the City will not necessarily accept any Proposal and the City reserves the right to reject any or all Proposals at any time without further explanation or to accept any Proposal considered advantageous to the City.

6.6 A Proposal which contains an error, omission, or misstatement, which contains qualifying conditions, which does not fully address all the requirements of this RFP, or which otherwise fails to conform to the requirements in this RFP may be rejected in whole or in part by the City at its sole discretion.

6.7 The City may waive any non-compliance with the RFP, specifications, or any conditions including the timing of delivery of anything required by the RFP and may, at its sole discretion, elect to retain for consideration Proposals which are non-conforming, which do not contain the content or form required by the RFP or because they have not complied with the process for submission set out herein.

6.8 The City may choose, at its sole discretion, to proceed with all of the components of the Work, none of the components or selected components of the Work.

6.9 All Proposals will remain confidential, subject to the *Freedom of Information and Protection of Privacy Act* of British Columbia.

7. Negotiations

7.1 The award of the contract is subject to negotiations with the Lead Proponent. Such negotiations include, but are not limited to, the following:

a) changes or work refinements in the service requirements or scope of work proposed by the selected Proponent;

b) price – if directly related to a change or refinement in the proposed scope of work proposed by the selected Proponent and

c) specific contract details as deemed reasonable for negotiation by the City of Richmond.

7.2 If a written contract cannot be negotiated within 60 days of notification to the selected Proponent, the City may, at its discretion at any time thereafter, terminate negotiations with the selected Proponent and either enter into negotiations with the next qualified Proponent or cancel the RFP process and not enter into a contract with any Proponent.

8. Project Background

The City's mainline pipe inspection equipment is an essential tool used by the City to assess pipe condition and investigate pipe blockage. The current equipment is more than ten (10) years old and no longer meets the City's needs. Replacing this equipment will improve the City's ability to inspect and assess its sanitary and drainage mains and connections.

The City's coring machine has also reached the end of its lifecycle and is due for replacement. This machine is used on a regular basis to sample concrete and asphalt.

9. Project Scope

9.1 This project scope consists of:

- Supply and installation of up-to-date equipment in the existing Grumman Work Horse van;
- Updates to the existing software package as required to suit the new equipment;
- Training and support for the system operators;
- A loaner equipment program;
- An asphalt/concrete coring machine.

9.2 Optional scope items consist of:

- Supply and installation of up-to-date equipment in the existing Grumman Work Horse van;
- Updates to the existing software package as required to suit the new equipment;
- Training and support for the system operators;
- A loaner equipment program;

10. Consultant Duties

10.1 The successful Proponent shall complete the required work including the supply and installation of inspections equipment, sampling equipment and related appurtenances that meet the minimum requirements listed below.

10.2 Proponents are to submit a detailed component list with their Proposal. Proposals are to be based upon the detailed component list and shall comply to the following:

- Relined 6" pipes shall have an inside diameter less than 6";
- The installation shall use the existing layout and cabinetry in the vehicle wherever possible;
- All parts not specifically mentioned which are required to render the system functional and complete the installation shall conform in design, strength, quality of material and workmanship to the highest standard of engineering practice;
- The equipment shall be manufacturer standard issue. It shall be equipped with the manufacturer's equipment and accessories which are included as standard in the advertised and published literature for the unit. No such items of equipment or accessories shall be removed or omitted for reasons that are not specified in the bid. Standard product items may be removed only where it is necessary to install other items in lieu thereof in order to comply with these specifications;
- The equipment supplied shall be new and unused except for the necessary testing, calibration and transportation.

11. Requirements:

The following requirements are the basis of the scope of work and the basis for fee proposals:

11.1 Condition and Compatibility

a. Complete a condition assessment of the City's existing equipment not being replaced by this RFP including but not limited to the generator/power system,

existing monitors and viewing screens, engineering control panel, mainline controller, mainline cable reel, recording equipment, and computer system.

b. The City shall request that the successful Proponent provide a price quote for the repairs or upgrades to any existing equipment to accommodate the new equipment based upon the findings of the condition assessment. At the City's request, the successful Proponent shall complete any necessary repairs or upgrades.

11.2 Single Conductor Transmission Cable

a. A combination double steel armoured towing and transmission single conductor cable shall be provided in continuous length of 1500 feet.
b. Cable shall be torque balanced to prevent unravelling or stretching.
c. Cable grip shall be included to transfer the cable towing strength to the camera skid runners or camera transporter.
d. A removable, reusable connector which allows for simple re-termination in the field shall be provided; connector shall be constructed of durable stainless steel.
e. A screw cap shall be provided for connector protection when not in use.
f. Any system employing soldering and/or scotch cast molding that require non-productive curing time shall not be acceptable.
g. Systems that use the armour layer as the only ground/return path shall be deemed unsafe and unacceptable.

11.3 Downhole Cable Guide Equipment

A manhole cable guide roller shall be provided to protect the cable from damage during the inspection.

a. Quick coupling extension poles shall be provided.
b. Guide system shall be able to be secured to manhole ring.
c. A manhole top roller assembly shall be supplied to provide topside cable protection.
d. A lowering rope to assist in placing the camera/transporter into manhole
e. A manhole bottom roller assembly shall be supplied to provide cable protection at pipe entry point.
f. Bottom roller assembly shall be compatible with inside pipe diameters ranging from relined 6" to 30" diameter

11.4 Mainline Camera

a. Camera shall be compatible with a single conductor cable.
b. Systems that use separate conductors for the camera, light power and video (multi-conductor), therefore requiring heavy cable that is difficult to terminate in the field shall not be acceptable

c. Directional camera head shall be capable of axial rotation and lateral swing or any combination, enabling the 360-degree viewing of pipe walls and laterals perpendicular to the direction of camera travel.
d. Lighting adequate for relined 6" to 30" diameter pipe shall be built into the camera head – halogen bulbs are preferred. Lights shall be field replaceable.
e. Camera lens shall provide a minimum 70-degree diagonal field of view.
f. Camera functions such as pan, rotation, homing, zoom, lens focus, shutter speed, iris control, and lamp intensity, shall be remotely controlled and adjusted from the control terminal.
g. The camera shall have adjustable light settings from off to full intensity and be fully functional with the lights turned off. Light settings shall be adjustable from the control terminal.
h. The camera's pan and rotate limits shall be programmable.
i. Camera housing shall be fabricated from durable material(s) such as anodized aircraft aluminium to resist scratching and corrosion.
j. Directional head shall have a distortion-free, glass window behind which the camera lens is located
k. Camera rotating head shall be mechanically driven with a gear drive and precision DC motors
l. Cameras with rotating heads driven with belts that are subject to premature wear, shall be considered high maintenance and shall not be acceptable
m. Camera shall be designed to operate in wet environments and shall be sealed to withstand typical external pressures encountered in drainage or sanitary sewers without leaking (typically less than 50 psi).
n. Camera shall be designed to allow operator to check camera leak resistance.
o. Camera shall be able to provide a high quality image with no distortion after transmission through 2500' of single conductor cable (high definition image is preferred).
p. Optical Zoom range shall be a minimum of 10x with digital Zoom range 4x (40x with optical zoom) total effective zoom ratio of 40:1.
q. A color bar generator shall be located in the camera and shall be capable of activation from the viewing station, enabling the user to check or adjust the color retention and contrast on the monitoring equipment
r. Camera shall be capable of recording inclination of the pipe.
s. Camera shall be compatible with the City's POSM software system and existing equipment.

11.5 Self Propelled Steerable Wheeled Camera Transporter

a. Camera transporter shall be steerable and use wheels as its mode of transportation
b. Transporter shall be all-wheel drive and use a gear driven drive train.
c. When combined with a mainline camera and accessories the transporter shall be capable of inspecting pipelines ranging from relined 6" to 30" diameter
d. Transporter shall be supplemented with a wheel kit including standard and studded tires and hub assemblies that are quickly interchangeable in the field.

e. The transporter shall be compatible with a single conductor cable.
f. The transporter shall have a minimum of variable forward speed suitable for mainline pipe inspection when loaded with a mainline camera, a stop function, power reverse and freewheel for easy retrieval.
g. The transporter shall be capable of completing a 180º turn in a distance no longer than the transporter.
h. Transporter shall be compatible with an auxiliary desktop controller (item 11.7).
i. Transporter must be waterproof and be suitable for operating in conditions encountered in the City's sewerage and drainage systems.
j. The transporter when loaded with a mainline camera shall be able to negotiate restrictive benching in City manholes and inspection chambers.
k. Transporter shall be compatible with existing POSM software and equipment.
l. Transporter extension kit and storage rack shall be included.

11.6 Lateral Inspection System

a. Lateral launcher system shall be capable of travelling along a mainline to a connection, remotely launching and retrieving a lateral inspection camera into a connections perpendicular to the mainline as well as completing mainline inspections.
b. Adequate lighting shall be provided for the intended applications – navigating mainlines and lateral inspections.
c. Lateral launcher transporter shall be compatible with a single conductor cable and existing cable reel and control system
d. Lateral launcher shall be able to operate in a minimum relined 6" diameter pipeline with enough clearance to negotiate offsets and debris.
e. Lateral launch tractor shall use wheels/tires as its mode of transportation.
f. Lateral launch system shall be able to accept auto-uprighting straight view, pan & tilt, or steerable pan & tilt camera for launching into laterals
g. Cameras to be capable of provide a high quality image with no distortion after transmission through the cable (high definition image is preferred).
h. Lateral camera shall be able to inspect minimum 4" diameter connections and negotiate restrictive benching in inspection chambers.
i. Lateral launch tractor shall have a dual swivel cable connector allowing for both X & Y axis to pivot.
j. All functions of the lateral launcher and lateral inspection camera shall be remotely controlled from the viewing station.
k. The system shall be supplemented with auxiliary wheel sets, a positioner height extension, auxiliary camera, and auxiliary lighting.
l. The system shall be sealed and designed for use in sanitary and storm sewer systems and withstand typical external pressures encountered in drainage or sanitary sewers without leaking (typically less than 50 psi).
m. Mainline camera head shall be able to rotate and pan or any combination for a 360º view of the pipe and laterals.

n. The lateral launch system's cable drum shall be synchronized with the mainline cable drum. The lateral launch cable drum must automatically bring up slack and auto-retrieve as the mainline cable drum retrieves without operator control at the reel. Any system that requires an operator to manually operate a variable speed control during retrieval shall be deemed unacceptable.
o. The lateral reel shall be able to electronically insert/retrieve lateral cable and camera without moving the mainline transporter backwards.
p. The cable drum shall have an automatic level wind guide.
q. The cable drum shall be stationary mounted and must be able to hold a minimum of 500' of cable (including 100' of lateral insertion cable).

11.7 Auxiliary Desktop Controller

a. Auxiliary Desktop controller shall be compatible with all required mainline inspection equipment as well as optional mainline inspection equipment.
b. The auxiliary controller shall control mainline camera head position and transporter movement (joysticks preferred) as well as camera functions such as iris, focus, lighting, zoom and automatic home position.

11.8 Data Collection System – Pipeline Observation System Management (POSM)

a. Provide multi year licence extension for the existing POSM Pro software package including all applicable software upgrades and service packages.
b. Install all upgrades and confirm that any errors or conflicts have been resolved.
c. Latest pipeline coding module shall be supplied and must be compatible with WRc and NASSCO coding standards.

11.9 Computer Hardware Protection

a. Dust proof computer case shall be supplied and installed.
b. Restrain/cushion computer for impact protection during travel shall be installed.

11.10 Maintenance Tool Kit

Tool kit shall include at a minimum the following;
a. Slim taper file
b. Combination wrenches 3/8" –3/4"
c. Screw driver set
d. 8" crescent wrench
e. Allen wrench set
f. Pliers set (5 pieces)
g. 3/8" drive socket set 3/8" – ¾"
h. Digital multi meter electronics tester
i. Rubber mallet
j. Soldering Iron

k. Rosin flux solder
l. Heat gun
m. Electrical tape rolls
n. Wire nut assortment

11.11 Loaner Program

a. For the life of the purchased camera, the Contractor shall provided to the City a loaner camera when the purchased camera is at the repair facility for maintenance or servicing. Prior to the City shipping their equipment in for repair, the loaner camera shall arrive at the City within twenty-four (24) hours of the City's request.
b. The City assumes the responsibility for any repairs required to the loaner camera, while it is their possession.
c. The Contractor shall cover cost of shipping the loaner equipment to the City for the life of the purchased camera; the City will cover the cost of returning the loaner equipment to the Contractor.

11.12 Training and Technical Support

a. Provide a technical and software support package that includes operator training, and local technical support.

11.13 Coring Equipment

a. One (1) Hilti DD 200 Pro Diamond Coring tool and stand shall be supplied.
b. Confirm that the specified coring machine is compatible with City's existing coring bits.
c. Supply and install an adjustable truck mounted stand that is made from durable material such as aluminium or steel.
d. Confirm the existing generator can support the coring tool's power requirements.

11.14 Additional Work

a. Install an external CAT5 computer network port on the outside of the vehicle on the driver's side in close proximity of the computer. The port must be fully protected from weather.
b. Supply and secure a fire extinguisher with the appropriate size and rating for the application to the inside of the vehicle
c. Confirm that there are adequate electrical outlets in the vehicle to support the proposed upgrades including appropriate outlet(s) for the coring machine
d. Provide three (3) hard copies and three (3) electronic copies of Operating and Maintenance Manuals for all equipment installed

11.15 Warranty

The Successful Proponent shall warrant all new equipment and components for a period of two (2) years from date of delivery.

a. The vehicle, generator, air conditioner, monitors, video recording devices, and computer hardware shall be covered by the Manufacturer's warranty and any services shall be referred to each Manufacturer's service organization.

b. Not covered by this policy are expendable or wear out items including but not limited to light bulbs, drive belts, cables, skids, bridles, tires, axles, stripped screws and connectors.

11.16 Optional Equipment

Proponents shall submit a separate proposal as part of their Submission to complete the optional work including the supply and install of the equipment that meet the minimum specifications listed below:

a) Steerable Storm Drain Tractor (Optional)

Steerable tractor shall be an all-wheel drive transporter capable of inspecting 24" to 200" pipeline.

a. The tractor shall be able to enter into a 24" manhole without alterations.
b. The tractor shall use the same single conductor cable specified in the required equipment portion of the RFP.
c. The steerable tractor shall be able to raise and lower the camera's viewpoint to centre in a 60" pipe.
d. The elevating platform shall be controlled remotely from the control terminal.
e. The tractor shall be constructed from durable material(s) such as anodized aircraft aluminium and stainless steel.
f. The tractor shall have variable forward speeds, stop, reverse and freewheel.
g. The tractor shall have adjustable light settings from off to full intensity and be fully functional with the lights turned off. Light intensity and direction shall be adjusted remotely from the control terminal.
h. Standard tire size shall be provided and shall be interchangeable with larger tires (wheel kit)
i. A large diameter wheel kit and all necessary tools for wheel change-over are required.

b) Motorized Equipment Crane (Optional)

a. Crane with articulated arms suitable for loading and unloading equipment such as the storm drain tractor into manholes or inspection chambers.
b. Ability to centre the lifting cable over an opening without moving the vehicle.
c. Powered arm adjustments, winch mechanism and hook/unhook function.
d. A safety hook shall be provided.
e. Arm position, hoist function and hook function shall be remotely controlled from a weather resistant tethered controller.

c) Laser Profiler (Optional)

a. The laser profiler shall be capable of profiling pipes from relined 6” to 48”
b. Shall be capable of completing pipe profile in a single pass
c. A professional data analysis software package is required to process laser profiler data and generate reports. The software must be compatible with the City’s existing asset management software packages including Hansen and ArcGIS.
d. Compatible with a single conductor cable system.
e. Annual certification and equipment maintenance services shall be included for the life of the profiler.

d) Wireless Integration (Optional)

a. Wireless integration of POSM Pro pipe inspection reports and Laser Profiler reports with City’s inventory maintenance systems including Hansen and ArcGIS.
b. Capable of transmitting and receiving video feeds, data and reports with the City’s network.

e) Warranty of Optional Equipment (Optional)

The Successful Proponent shall warrant all new manufactured equipment and components for a period of two (2) years from date of delivery.

a. The vehicle, generator, air conditioner, monitors, video recording devices, and computer hardware shall be covered by the Manufacturer’s warranty and any services shall be referred to each Manufacturer’s service organization.

b. Not covered by this policy are expendable or wear out items including but not limited to light bulbs, drive belts, cables, skids, bridles, tires, axles, stripped screws and connectors.

12. City Provided Items

- 2001 Grumman Work Horse van. Dimensions and inventory of existing components to be confirmed by the Proponents.
- On-board generator. The generator specifications to be confirmed by the Proponents.
- POSM PRO computer software.

13. Project Schedule

The project is to be completed by the end of April 2012 based on contract award by December 07, 2011, with work commencing as soon as possible upon award of the contract. A project schedule is to be submitted with the proposal.

14. Proposal Submissions

All proponents are required to provide the following information with their submissions, and in the order that follows:

1. A detailed listing of the proponent's experience with supply, installation and maintenance of similar inspections equipment.

2. A detailed project methodology explaining each project task including and what will be expected of both the Contractor and the City with respect to each task.

3. A detailed proposal of what will be delivered, including the expected outcome and benefits to the City of Richmond.

4. A detailed schedule of all activities, including milestones, project meetings, interim reports and progress reports required for this project.

5. Provision of a pricing methodology as per Schedule A – Pricing and a time allotments schedule for each identified task proposed to employ to carry out the work, this shall form the basis for payments to the successful proponent. Supplement this with a schedule of fees for staff to be assigned to the project. These rates shall be the basis for adjustments to the value of the contract in the event the scope of work varies from that proposed.

6. A minimum of three (3) client references from projects of a similar size and scope.

15. Review of Proposals

15.1 The City will review the Proposals submitted to determine whether, in the City's opinion, Proponents have demonstrated the required experience and qualifications to fulfill the obligations of the services identified in this RFP.

15.2 The City, in its sole discretion and without having any duty or obligation to do so, may conduct any inquiries or investigations, including but not limited to contacting references, to verify the statements, documents, and information submitted in connection with the Proposal and may seek clarification from the Proponent's clients regarding any financial and experience issues.

15.3 As part of its evaluation of the Proposals, the City may request a field demonstration of the equipment proposed in each submission. The Proponent must be prepared to demonstrate all required and optional proposed equipment. The City will select a section(s) of mainline and/connection within Richmond for the demonstration. To facilitate the demonstration, the City, at its cost, will:

a) obtain the necessary approvals;

b) provide traffic control.

15.4 Proposals shall be evaluated to determine the best value offered to the City against conformance to the following criteria:

a) Value for Money.

b) Project Deliverables.

c) Project Methodology.

d) References.

15.5 Proponents may be scheduled for an interview at the discretion of the City.

15.6 Proposals will be evaluated based on the required items only; optional items will not be included in the evaluation process.

16. Non-Conforming Proposals

16.1 Proposals which fail to conform to the Format Requirements or which fail to conform to any other requirement of this RFP may be rejected by the City. Notwithstanding the foregoing or any other provision of this RFP, the City may at its sole discretion elect to retain for consideration Proposals which deviate either materially from the format requirements set out in hereto or which otherwise fail to conform to any other requirement of this RFP except the requirement of delivery of the Proposal prior to Closing Time.

17. RFP Process

17.1 The City may unilaterally take the following actions, and shall not be liable for any such actions:

a) amend the scope and description of the products and services to be procured as described in this RFP, and the qualifications that may be required to meet those requirements;

b) reject or accept any or all Submissions;

c) cancel the RFP process at any time and reject all submissions; or

d) cancel the RFP process and recommence in respect of the same RFP with the same or an amended set of documents, information and requirements.

17.2 The Proponent acknowledges and agrees that any RFP is in no way whatsoever an offer to enter into an agreement and submission of a Request of Proposal by any Proponent does not in any way whatsoever create a binding agreement. The Proponent acknowledges that the City has no contractual obligations whatsoever arising out of the RFP process.

18. Working Agreement

18.1 The successful proponent will enter into a contract for services with the City based upon the information contained in this request for proposal and the successful proponents submission and any modifications thereto.

19. Information Disclaimer

19.1 The City and its directors, officers, employees, agents, consultants and advisors are not liable or responsible for any verbal or written information, or any advice, or any errors or omissions, which may be contained in this RFP or otherwise provided to any Proponent pursuant to this RFP.

19.2 The Proponent shall conduct its own independent investigations and interpretations and shall not rely on the City with respect to information, advice, or documentation provided by the City. The information contained in this RFP is provisional and will be superseded by other agreement documents.

19.3 The City makes no representation, warranty, or undertaking of with respect to this RFP and the City and its directors, officers, employees, agents, consultants and advisors, shall not be liable or responsible for the accuracy or completeness of the information in this RFP or any other written or oral information made available to any interested person or its advisors, and any liability however arising, is expressly disclaimed by the City.

Schedule A - Pricing

Section	Requirements	Unit Price (if applicable)	Total Price	Comments (if any)
11.1	Condition Assesment			
11.2	Single Conductor Cable			
11.3	Downhole Cable Guide Equipment			
11.4	Mainline Camera			
11.5	Self Propelled Steerable Wheeled Camera Transporter			
11.6	Lateral Inspection System			
11.7	Auxiliary Desktop Controller			
11.8	Data Collection System - Pipeline Observation System Management (POSM)			
a.	Licensing Cost			
b.	Software updates			
c.	Pipeline Coding Module			
11.9	Computer Hardware Protection			
a.	Dust proofing			
b.	Restraints			
11.10	Maintenance Tool Kit			
11.11	Loaner Program			
11.12	Training and Technical Support			
11.13	Coring Equipment			
11.14	Additional Work			
a.	CAT 5 Outlet			
b.	Fire Extinguisher			
c.	Outlets			
d.	Maintenance Manuals			
11.15	Warranty			
	Subtotal			
11.16	Optional Equipment			
a.	Steerable Drain Storm Tractor			
b.	Motorized Equipment Crane			
c.	Laser Profiler			
d.	Wireless Integration			
	a) Hardware			
	b) Software			
	c) Integration			
e.	Warranty of Optional Equipment			
	Subtotal			
	Total			