

TOWN OF STONEWALL

Schedule "B" to By-Law No. 26/10

Local Improvement Plan No. 3



West Lift Station and associated forcemain rehabilitation

Pursuant to Division 4 – Local Improvements and Special Services – of The Municipal Act the Town of Stonewall proposes to undertake as a local improvement for the benefit of a portion of the municipality the rehabilitation of the west waste sewer lift station and associated forcemain (Section 311).

The Local Improvement Plan has been proposed and prepared by the Council of the Town of Stonewall (Section 313),.

LOCAL IMPROVEMENT PLAN

a) Description of Proposed Local Improvement:

The rehabilitation works for the west lift station and associated forcemain will include replacement of sewage pumps with higher capacity pumps, replacement of valves, fittings and hatches, new insulated metal cladding with a hip roof with metal roofing, construction of interior partition wall separating the electrical room from the wet well, new electrical service, panels, transfer switch and wiring, new genset for backup power, new pump control panel, new ventilation and HVAC system, installation of swab port and water supply to 400mm forcemain. The rehabilitated lift station and associated forcemain will provide a more efficient and reliable operation for the transfer of waste sewer to the lagoon.

b) Local Improvement District

The Local Improvement District upon which the proposed local improvement tax will be imposed for this local improvement shall be all assessable property i.e. taxable, grant-in-lieu and otherwise exempt property within an area generally described bounded on the north by 4th Ave North, Procure Drive, Procure Bay and Montgomery Ave, on the east by 4th Street East, on the south by 3rd Ave South, the VMSC grounds, 5th Ave South west of 3rd Street West and Oak Park Drive and on the west by 12th Street West within the Town of Stonewall and the district shall be known as Local Improvement District No. 4 and is shown outlined on the attached Map being Appendix B..

c) Identification of Potential Taxpayers

The potential taxpayers for this Local Improvement Plan shall be all assessable property generally defined and located within an area bounded on the north by 4th Ave North, Procure Drive, Procure Bay and Montgomery Ave, on the east by 4th Street East, on the south by 3rd Ave South, the VMSC grounds, 5th Ave South west of 3rd Street West and Oak Park Drive and on the west by 12th Street West within the Town of Stonewall (Local Improvement District No. 4 as is shown outlined on the attached Map being Appendix B).

d) Method and Rate for proposed Local Improvement Tax

The proposed local improvement tax to be levied under this Plan will be calculated on the portioned value of all assessable property within Local Improvement District No. 4 of the Town. The rate is estimated to be 0.60 mills, calculated on the 2011 assessment (\$99,990.20 annual payment on \$164,328,330 assessment). Calculated on a residential property valued at \$250,000 (taxable assessment of \$112,500) an estimated \$67.50 local improvement tax will be levied annually over a twenty (20) year term (2011 to 2030).

e) Estimated cost of West Lift Station and associated forcemain rehabilitation

The estimated cost of the rehabilitation of the west lift station and associated forcemain including consultant and interim financing costs is \$1,101,000.00. (See Appendix A – Opinion of probable cost attached hereto).

f) Anticipated Sources of funding for rehabilitation of west lift station & associated forcemain

Capital Borrowing pursuant to Part 6 Division 2 of <u>The Municipal Act</u>	\$ 1,101,000.00
TOTAL	\$ 1,101,000.00

g) Terms of Borrowing

The estimated amount of borrowing is \$1,101,000.

The maximum rate of interest on the borrowing will be 6%.

The term of the borrowing is to be twenty (20) years (2011 to 2030).

The estimated Annual Payment of principal and interest is \$95,990.20.

The interim financing of the borrowing shall be from the Sunova Credit Union, Stonewall Branch, at the rate of interest not to exceed 3.5% per annum.

h) Funding of Annual Operation and Maintenance of West Lift Station & associated forcemain

The cost of the annual operating and maintenance of the rehabilitated west lift station and associated forcemain shall be funded from consumer charges of the Town of Stonewall utility (water/wastewater) service.

Proposed for the Town of Stonewall this 8th day of December, 2010.


Robert J. Pettey, C.M.M.A.
CAO

APPENDIX "A"
Opinion of Probable Cost
To Schedule "B" to By-Law No. 26/10

Local Improvement Plan No. 3
Rehabilitation of west waste sewer lift station and
associated forcemain

1. a) Rehabilitation of West Lift Station – Pump system #2 and appurtenances (see AECOM assessment report dated Aug. 9/10 and attached Cost Estimate)	\$ 638,300.00
b) Additional works-Construction Cost-Option B (see AECOM Assessment Report dated Aug 9/10 and attached Cost Estimate.)	\$ 227,100.00
2. Engineering design and construction administration fees (see proposal from Wardrop dated September 24/10 and attached Estimated Engineering Fees	\$ 94,400.00
3. Other/misc.	
Phase 3 electrical power	\$ 40,000.00
Permits	\$ 5,000.00
Miscellaneous	\$ 10,000.00
4. Contingency (5% on \$1,014,000)	\$ 50,740.00
5. Interim Financing	
\$1,065,540.00 @ 3.5% / annum	\$ 35,460.00
TOTAL	\$ 1,101,000.00

Town of Stonewall
 Rehabilitation of West Lift Station - Pump #2 (ITT NP 3171.181 MT 25 kW)
 Cost Estimate

Item	Units	Quantity	Price	Total
Pumps				
ITT Model NP-3171	each	2	\$ 21,500	\$ 43,000
Flush Valve	each	1	\$ 3,300	\$ 3,300
Remove existing pump	each	2	\$ 3,000	\$ 6,000
Guide Rails - 75mm	lin m	32	\$ 150	\$ 4,800
Installation	lump sum	1	\$ 20,000	\$ 20,000
				\$ 77,100
Piping and Valves				
Ball check valves	each	2	\$ 900	\$ 1,800
Combination air valve	each	1	\$ 3,000	\$ 3,000
Pressure Gauge c/w diaphragm	each	1	\$ 500	\$ 500
Miscellaneous Fitting replacements	lump sum	1	\$ 3,000	\$ 3,000
Installation	lump sum	1	\$ 8,000	\$ 8,000
				\$ 16,300
Controls				
Duplex Control Panel (VFD)	lump sum	1	\$ 20,000	\$ 20,000
Installation, Programming	lump sum	1	\$ 7,000	\$ 7,000
				\$ 27,000
Electrical				
Manitoba Hydro Service	lump sum	1	\$ 40,000	\$ 40,000
Meter and Enclosure	each	1	\$ 1,500	\$ 1,500
600V Service Distribution Panel	each	1	\$ 9,500	\$ 9,500
15 kVA transformer	each	1	\$ 2,500	\$ 2,500
120/208V CCT Panelboard	each	1	\$ 1,900	\$ 1,900
Wiring and Conduit - 600V to 120/208V	lump sum	1	\$ 1,200	\$ 1,200
Ground Rods	each	2	\$ 425	\$ 850
40 kW 600/347V 3Ph Genset	each	1	\$ 55,400	\$ 55,400
Wiring and Conduit - Transfer switch to Genset	lump sum	1	\$ 1,000	\$ 1,000
Transfer Switch	each	1	\$ 5,200	\$ 5,200
Wiring - Pump controller	lump sum	2	\$ 550	\$ 1,100
Wiring - Pump starter	lump sum	1	\$ 3,500	\$ 3,500
Lighting - Explosion Proof	lump sum	1	\$ 1,200	\$ 1,200
100mm UG Ducting to Genset	lump sum	1	\$ 800	\$ 800
Misc Receptacles and Non Ex-proof Lighting	lump sum	1	\$ 1,000	\$ 1,000
Installation Overhead	lump sum	1	\$ 32,000	\$ 32,000
				\$ 158,650
HVAC				
Ventilation - Wet Well Room	lump sum	1	\$ 12,700	\$ 12,700
Controls - Wet Well Room	lump sum	1	\$ 4,000	\$ 4,000
Heating - Wet Well Room	lump sum	1	\$ 4,100	\$ 4,100
Ventilation - Control Room	lump sum	1	\$ 3,300	\$ 3,300
Heating & Cooling - Control Room	lump sum	1	\$ 8,000	\$ 8,000
Fire Protection	lump sum	1	\$ 700	\$ 700
Programming, Testing, Commissioning	lump sum	1	\$ 12,000	\$ 12,000
Asbestos Vent Pipe replacement	lump sum	1	\$ 5,000	\$ 5,000
Installation Overhead	lump sum	1	\$ 11,000	\$ 11,000
				\$ 60,800
Building				
Aluminum platform hatch covers	each	2	\$ 2,500	\$ 5,000
New Doors	each	2	\$ 1,200	\$ 2,400
Wood truss hip roof with metal roofing	lump sum	1	\$ 10,000	\$ 10,000
Gutters, flashing, soffits, trim	lump sum	1	\$ 1,800	\$ 1,800
Insulated and metal clad exterior wall finish	lump sum	1	\$ 13,000	\$ 13,000
New Interior partition	lump sum	1	\$ 2,500	\$ 2,500
Miscellaneous	lump sum	1	\$ 1,500	\$ 1,500
				\$ 36,200

Town of Stonewall
 Rehabilitation of West Lift Station - Pump #2 (ITT NP 3171.181 MT 25 kW)
 Cost Estimate

Item	Units	Quantity	Price	Total
Sitework				
6.1m Double Chain Link vehicle gate	lump sum	1	\$ 1,500	\$ 1,500
Concrete Landing	sq m	6	\$ 100	\$ 600
Regravel driveway (18x5m)	sq m	90	\$ 10	\$ 900
Construct new gravel Driveway (15x5m)	sq m	75	\$ 30	\$ 2,250
300mm deep Planting Bed preparation	sq m	50	\$ 25	\$ 1,250
Shrubs, Trees	each	30	\$ 35	\$ 1,050
Topsoil and Sod	sq m	120	\$ 15	\$ 1,800
				\$ 9,350
Watermain Extension				
Connect to Existing AC Watermain - inline	lump sum	1	\$ 4,000	\$ 4,000
200mm Watermain - trenchless installation	lin m	130	\$ 300	\$ 39,000
Hydrant	each	1	\$ 10,000	\$ 10,000
Gate Valve	each	1	\$ 2,000	\$ 2,000
Plug	each	1	\$ 500	\$ 500
				\$ 55,500
Swab Launch and Forcemain Cleaning				
Manhole - 1800 diam	vert m	4	\$ 3,000	\$ 12,000
400mm DR32.5 Forcemain	lin m	4	\$ 400	\$ 1,600
Connection to existing forcemain	lump sum	1	\$ 6,000	\$ 6,000
25mm Manual air bleed	lump sum	1	\$ 600	\$ 600
Rebar Couplings - 400mm	each	2	\$ 2,500	\$ 5,000
400mm Wye	each	1	\$ 6,000	\$ 6,000
400mm Gate Valve	each	1	\$ 15,000	\$ 15,000
Blind Flange with Hose Connection	each	1	\$ 1,500	\$ 1,500
Hose fittings, throttle valve, check valve	lump sum	1	\$ 2,000	\$ 2,000
Swab 400mm forcemain - minimum 5 pigs	lump sum	1	\$ 20,000	\$ 20,000
				\$ 69,700
Construction Cost				\$ 510,600
Engineering and Admin			15%	\$ 76,590
Contingency			10%	\$ 51,060
Total				\$ 638,300

Town of Stonewall
 Rehabilitation of West Lift Station
 Cost Estimate - Additional Works

Item	Units	Quantity	Price	Total
Option A - Replacement wetwell - Precast Manhole type				
Bedrock excavation	cu m	45	\$ 200	\$ 9,000
Oversize 3000mm base slab	each	1	\$ 7,000	\$ 7,000
3000mm x 1.22m Manhole Barrel	each	1	\$ 5,627	\$ 5,627
3000mm x 1.83m Manhole Barrel	each	3	\$ 8,440	\$ 25,320
3000mm Top Slab	each	1	\$ 5,550	\$ 5,550
Gaskets	lin m	15	\$ 45	\$ 674
Backfill	cu m	90	\$ 80	\$ 7,200
Hatches - custom	each	2	\$ 4,000	\$ 8,000
Ladder	vert m	9	\$ 1,000	\$ 9,000
Installation	lump sum	1	\$ 20,000	\$ 20,000
				\$ 97,371
Option B - Replacement wetwell - Single cell Cast in Place type				
Bedrock excavation	cu m	96	\$ 200	\$ 19,200
Working Base (lean mix)	cu m	1.5	\$ 500	\$ 750
Floor Slab	cu m	10	\$ 1,000	\$ 10,000
Roof Slab	cu m	5	\$ 1,000	\$ 5,000
Walls	cu m	32	\$ 2,000	\$ 64,000
Backfill	cu m	50	\$ 80	\$ 4,000
Hatches - custom	each	2	\$ 4,000	\$ 8,000
Ladder	vert m	9	\$ 1,000	\$ 9,000
				\$ 119,950
Abandon Existing Wetwell				
Desludging	lump sum	1	\$ 1,500	\$ 1,500
Removals	lump sum	1	\$ 2,000	\$ 2,000
Gravel	cu m	50	\$ 25	\$ 1,250
Lean mix concrete	cu m	5	\$ 100	\$ 500
				\$ 5,250
Replacement wetwell piping and equipment				
Gravity sewer connection	lump sum	1	\$ 4,000	\$ 4,000
Forcemain connection	lump sum	2	\$ 5,000	\$ 10,000
Reconnections	lump sum	1	\$ 5,000	\$ 5,000
Station piping	lump sum	1	\$ 30,000	\$ 30,000
Knife Gate Valves	each	3	\$ 1,500	\$ 4,500
Discharge Elbows - 200mm x 200mm	each	2	\$ 1,500	\$ 3,000
				\$ 56,500
Construction Cost - Option A				\$ 159,121
Engineering and Admin			15%	\$ 8,475
Contingency			10%	\$ 5,650
Total				\$ 173,200
Construction Cost - Option B (Preferred)				\$ 181,700
Engineering and Admin			15%	\$ 27,255
Contingency			10%	\$ 18,170
Total				\$ 227,100

TABLE 1
 ESTIMATED ENGINEERING FEES - STONEWALL WEST LIFT STATION AND FORCEMAIN REHABILITATION
 Date September 21, 2010
 Document 1023066100-FE-C0001-00

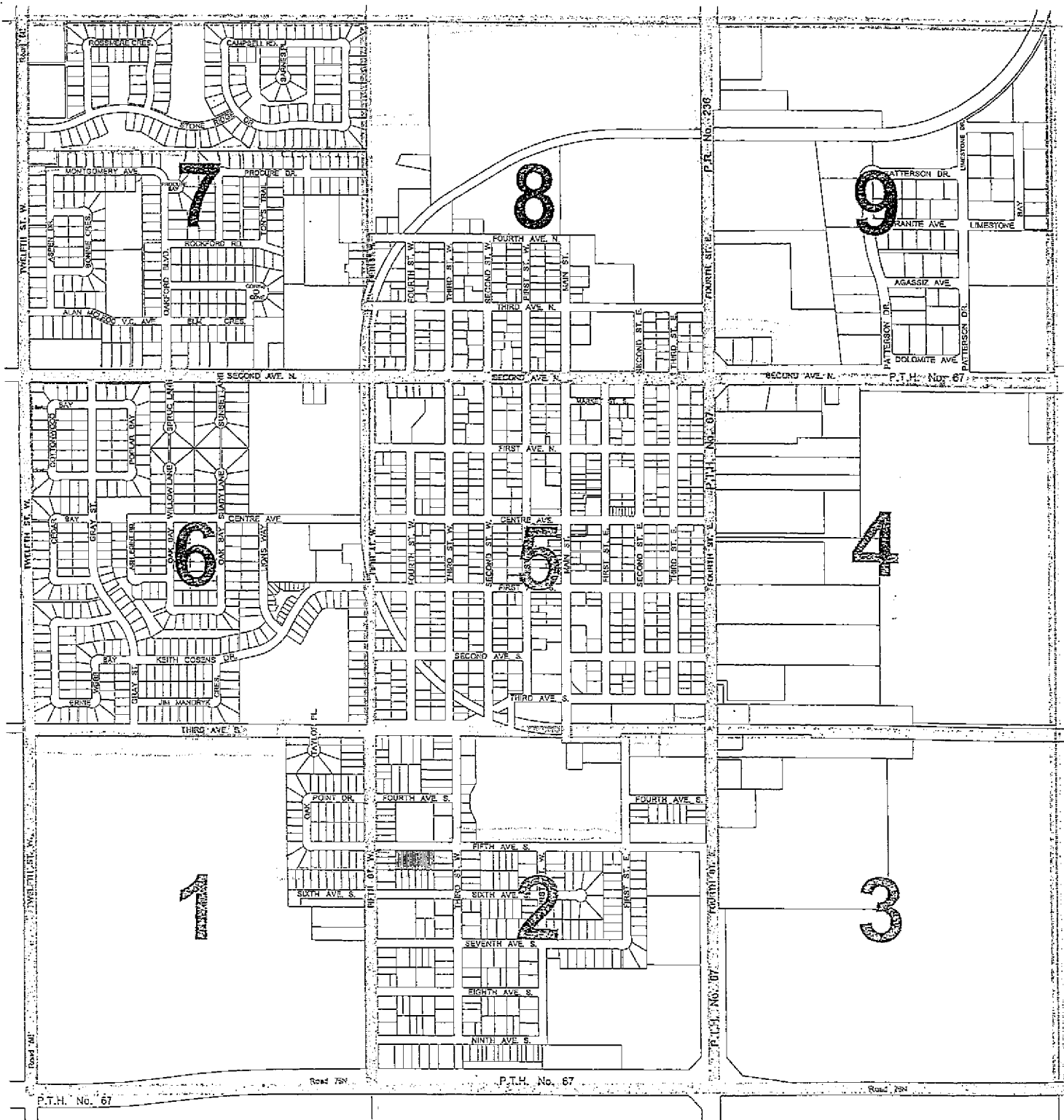


TASKS	Personnel	Role	Larry Clevin Project Manager \$160	Kirby McRae Project Engineer \$160	Gary Dingle Municipal Drafting \$85	Tyler Smeal Structural Engineer \$110	Dwayne Penner Arch. Designer \$105	Elizabeth Valoso Structural Drafting \$70	Randy Loewen Mechanical Lead \$110	Willredo Navarro Mechanical Tech \$85	Richard Mayslick Electrical Lead \$130	Clint Gerus Electrical Drafting \$80	Dwayne Penner Contract Admin., \$115	Inspection \$85	Admin \$55	Hours	Total Fees	Expenses			Grand Total
																		Type 1	Type 2	Total	
1. Project Initiation																					
1.1	Review Available Information		1.0			1.0	1.0		1.0	1.0						6.0	\$720	\$30		\$38	\$758
1.2	Site Visit			4.0			4.0		4.0	4.0						16.0	\$1,920	\$50	\$50	\$1918	\$2,058
1.3	Project Meetings		1.0	3.0			3.0		3.0	3.0	4.0					17.0	\$2,120	\$106		\$105	\$2,226
2. Design and Drafting																					
2.1	Civil / Municipal (3 Drawings)		1.0	24.0	72.0											97.0	\$10,120	\$506		\$506	\$10,626
2.2	Building / Structural (1 Drawing)		1.0			4.0	20.0	20.0								49.0	\$4,360	\$218		\$218	\$4,578
2.3	Mechanical (2 Drawings)		1.0						24.0	48.0						73.0	\$7,360	\$368		\$368	\$7,728
2.4	Electrical (2 Drawings)		1.0								50.0	60.0				121.0	\$12,760	\$638		\$638	\$13,398
2.5	Removal / Demolition (1 Drawing)			4.0												8.0	\$880	\$48		\$48	\$1,028
3. Contract Specifications																					
3.1	Civil / Municipal		1.0	6.0												7.0	\$1,060	\$82		\$82	\$1,142
3.2	Building / Structural		1.0			4.0	8.0									4.0	\$720	\$83		\$83	\$1,743
3.3	Mechanical		1.0						8.0	16.0						4.0	\$2,760	\$139		\$139	\$2,899
3.4	Electrical		1.0								20.0					4.0	\$2,980	\$148		\$148	\$3,128
4. Document Review																					
4.1	Review with Client			4.0			4.0		4.0							12.0	\$2,100	\$105		\$105	\$2,205
4.2	Revisions			2.0			2.0		2.0		2.0		15.0			21.0	\$3,050	\$151		\$151	\$3,171
4.3	Cost Estimate		1.0	2.0		1.0	2.0		1.0	4.0	4.0					15.0	\$1,750	\$82		\$80	\$1,830
5. Tender																					
5.1	Tender Package		1.0	2.0									12.0			15.0	\$1,860	\$93	\$400	\$493	\$2,353
5.2	Questions during tender			2.0			2.0		2.0				4.0			2.0	\$2,100	\$105		\$105	\$2,205
5.3	Review Tender and Make Recommendation		1.0	1.0					1.0		1.0		4.0		1.0	3.0	\$1,055	\$55		\$55	\$1,155
6. Contract Administration																					
6.1	Non-resident CA		2.0										24.0			26.0	\$3,060	\$154	\$100	\$254	\$3,314
6.2	Shop Drawing Review			2.0		2.0	2.0		1.0	2.0	2.0					11.0	\$1,310	\$65		\$65	\$1,375
6.2	Site Visits / Inspections			6.0			3.0		3.0	6.0	6.0					35.0	\$4,350	\$218	\$500	\$718	\$5,068
6.3	Resident Inspection													120.0		120.0	\$10,200		\$1,200	\$1,200	\$11,400
6.4	O & M Manuals			8.0			4.0			4.0	2.0		4.0			22.0	\$2,750	\$138	\$100	\$238	\$2,988
6.5	Revised Drawings		1.0	4.0	8.0				4.0	2.0		8.0				47.0	\$4,365	\$218	\$200	\$418	\$4,778
6.6	Project Close-out		1.0													3.0	\$350	\$25		\$25	\$375
Total Hours			17.0	76.0	80.0	19.0	52.0	28.0	48.0	98.0	116.0	58.0	78.0	126.0	21.0	337.0					
Sub Total			\$2,720	\$12,160	\$5,800	\$2,050	\$5,460	\$1,560	\$6,240	\$8,330	\$15,380	\$5,440	\$8,570	\$11,560	\$1,165		\$37,982	\$3,888	\$2,350	\$6,438	\$24,400

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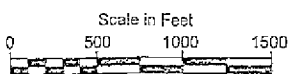
	Contract		
	Design	Admin.	Total
Total Estimated Fees	\$ 61,405	\$ 26,560	\$ 87,965
Total Estimated Expenses	\$ 3,520	\$ 2,918	\$ 6,438
Grand Total	\$ 64,925	\$ 29,478	\$ 94,403
(Rounded)	\$ 64,900	\$ 29,500	\$ 94,400

Table 1





KEY MAP

APPENDIX "B" to
 SCHEDULE "B"
 to Local Improvement
 Plan No. 3
 BY-LAW NO. 26/10



Revised to 2009 Final Assessment Roll
 up to Plan No. 47923.


 Date - Feb., 2009
 

Manitoba
 Intergovernmental Affairs
 Community Planning Services

Town of Stonewall Roll Entry Maps 1 to 9