

MEMORANDUM

To: Mayor and City Council

From: David Elliott

Date: January 8, 2018

Subject: 4099 Chestnut Ridge Drive funding approval for

Stormwater Repairs.

ITEM DESCRIPTION

Approval of Funding for Stormwater Pipe Repairs at 4099 Chestnut Ridge Drive. Estimate for the culvert rehabilitation is \$55,956.88, which includes a 10% contingency.

BACKGROUND

Needed repairs have been identified involving 176' of 42" corrugated metal pipe. Repairs are needed due to both age and pipe damage during original construction. The planned repairs consist of rehabilitating 176' of 42" corrugated metal pipe with cured in place pipe.

This project will be funded with the 2018 Stormwater Maintenance Budget.

RECOMMENDED ACTION

Staff recommends approving \$55,956.88 in funding for Stormwater Culvert Repairs at 4099 Chestnut Ridge Drive.

#H.14.



Pipe Damage From Original Construction

#H.14.



Pipe Damage From Original Construction

#H.14.



Rusting and Pipe Deterioration due to age



ITEM	DESCRIPTION	UNIT	UNIT PRICE	QTY	EXTENDED PRICE
	AND A DOMESTIC TO THE CONTROL OF THE		4		4
205	4'x4' Precast Top w/ MH Ring and Cover	EA	\$ 1,362.00		\$ -
206	5'x5' Precast Top w/ MH Ring and Cover	EA	\$ 1,702.00		\$ -
207	Cast-in-Place Top Only w/ Ring & Cover	CY	\$ 1,418.00	-	\$ -
208	Cast-in-Place Throat Only	CY	\$ 1,021.00	<u> </u>	\$ -
209	Invert Installation, 4' Diameter	EA	\$ 318.00		\$ -
210	Invert Installation, 5' Diameter	EA	\$ 369.00		\$ -
211	Invert Installation, 6' Diameter	EA	\$ 454.00	1	1037
212	Invert Installation, other configurations	SF	\$ 40.00		\$ -
213	Uncover Buried Junction Box (<4')	EA	\$ 454.00	1	_050 = 0005/5000000
214	Uncover Buried Junction Box (4'-7.9')	EA	\$ 511.00		\$ -
215	Uncover Buried Junction Box (8'-11.9')	EA	\$ 568.00		\$ -
216	Uncover Buried Junction Box (>12')	EA	\$ 681.00		\$ -
Grout Conn	ection To Structure	70			<u></u>
217	12" Grout Each End to Structure	EA	\$ 454.00		\$ -
218	15" Grout Each End to Structure	EA	\$ 511.00		\$ -
219	18" Grout Each End to Structure	EA	\$ 568.00		\$ -
220	21" Grout Each End to Structure	EA	\$ 568.00		\$ -
221	24" Grout Each End to Structure	EA	\$ 624.00		\$ -
222	27" Grout Each End to Structure	EA	\$ 681.00		\$ -
223	30" Grout Each End to Structure	EA	\$ 738.00		\$ -
224	36" Grout Each End to Structure	EA	\$ 794.00		\$ -
225	42" Grout Each End to Structure	EA	\$ 851.00	2	\$ 1,702.00
226	48" Grout Each End to Structure	EA	\$ 91.00		\$ -
227	54" Grout Each End to Structure	EA	\$ 965.00		\$ -
228	60" Grout Each End to Structure	EA	\$ 1,021.00		\$ -
229	66" Grout Each End to Structure	EA	\$ 1,078.00		\$ -
230	72" Grout Each End to Structure	EA	\$ 1,135.00		\$ -
10000000000	Grout all joint, cracks & holes, in structures,				
231	complete	EA	\$ 568.00	2	\$ 1,136.00
LINING REC	QUIREMENTS				
Cured In Pla	ace Pipe Liner (CIPP) - (12' or less in depth) Include	s Pre & Post Tel	levision Inspec	tions (during lining
232	12" PIPE- 7.5mm (.2953")	LF	\$ 68.31		\$ -
233	15" PIPE- 7.5mm (.2953")	LF	\$ 68.31		\$ -
234	18" PIPE- 8.0mm (.315")	LF	\$ 71.28		\$ -
235	21" PIPE- 10.0mm (.3937")	LF	\$ 81.18		\$ -
236	24" PIPE- 10.0mm (.3937")	LF	\$ 101.97		\$ -
237	30" PIPE- 12.5mm (.4921")	LF	\$ 123.75		\$ -
238	36" PIPE- 16.0mm (.6299")	LF	\$ 157.41		\$ -
239	42" PIPE- 18.0mm (.7087")	LF	\$ 207.90	176	
240	48" PIPE- 21.0mm (.8268")	LF	\$ 247.50		\$ -
241	54" PIPE- 24.0mm (.9449")	LF	\$ 308.88		\$ -



ITEM	DESCRIPTION	UNIT	UNIT PRICE	QTY	EXTENDED PRIC
242	60" PIPE- 28.5mm (1.122")	LE	\$ 436.59		\$
243	66" PIPE- 30.0mm (1.1811")	LF	\$ 781.11		\$
244	72" PIPE- 32.5mm (1.2795")	LF	\$ 935.55		
HN467655	S CONTROL OF THE PROPERTY OF T	denote.		-	
245	78" PIPE- 33.0mm (1.2992")	LF	\$ 1,099.89	<u> </u>	\$
246	84" PIPE- 35.5rnm (1.3976")	LF	\$ 1,274.13	_	\$
247	90" PIPE- 38.0mm (1.4961")	LF	\$ 1,308.78		\$
248	96" PIPE - 40.5mm (1.5945")	LF	\$ 1,358.28		\$
	Additional Cost Per 1.5mm (.0591")Thickness - 12"			7	
249	PIPE	LF	\$ 2.97		\$
(<u>12-2-2)</u>	Additional Cost Per 1.5mm (.0591") Thickness - 15"	102			£
250	PIPE	LF	\$ 2.97		\$
254	Additional Cost Per 1.5mm (.0591")Thickness - 18"		ć 2.07		ė
251	PIPE Additional Cost Per 1.5mm (.0591") Thickness - 21"	LF	\$ 2.97		\$
252	PIPE	LF	\$ 3.96		\$
232	Additional Cost Per 1.5mm (.0591")Thickness - 24"	L	3 3.30		7
253	PIPE	LF	\$ 3.96		\$
255	Additional Cost Per 1.5mm (.0591")Thickness - 30"		3.50		· ·
254	PIPE	LF	\$ 4.95		\$
	Additional Cost Per 1.5mm (.0591")Thickness - 36"				
255	PIPE	LF	\$ 4.95		\$
Se Peter Ve M	Additional Cost Per 1.5mm (.0591") Thickness - 42"	1001			
256	PIPE	LF	\$ 5.94		\$
100000000000000000000000000000000000000	Additional Cost Per 1.5mm (.0591")Thickness - 48"				
257	PIPE	LF	\$ 7.92		\$
	Additional Cost Per 1.5mm (.0591")Thickness - 54"				
258	PIPE	LF	\$ 10.89		\$
	Additional Cost Per 1.5mm (.0591")Thickness - 60"				
259	PIPE	LF	\$ 10.89		\$.
000000000	Additional Cost Per 1.5mm (.0591") Thickness - 66"	200			r
260	PIPE	LF	\$ 13.86		\$
264	Additional Cost Per 1.5mm (.0591")Thickness - 72" PIPE		ć 15.04		ė.
261	Additional Cost Per 1.5mm (.0591 ")Thickness - 78"	LF	\$ 15.84	_	\$
262	PIPE	LF	ć 10.01		\$
262	Additional Cost Per 1.5mm (.0591")Thickness - 84"	LF	\$ 18.81		3
263	PIPE	LF	\$ 20.79		\$
203	Additional Cost Per 1.5mm (.0591")Thickness - 90"	L	2 20.73		
264	PIPE	LF	\$ 22.77		\$
	Additional Cost Per 1.5mm (.0591") Thickness - 96"		1		
265	PIPE	LF	\$ 24.75		\$
ersion Se		- C2800	The second secon		Approximate the second
266	Inversion Setup Charge 15"- 36" CIPP	EA	\$ 1,684.98		\$
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267	Inversion Setup Charge 42"- 60" CIPP	EA	\$ 1,909.71	1	\$ 1,909



ITEM	DESCRIPTION	UNIT	U١	IIT PRICE	QTY	EXTENDED PRICE
General Cor		ī	1		r	1 %
1	Mobilization	EA		2,269.00	1	**
2	Out of Scope Work, Foreman	HR	\$	46.00		\$ -
3	Out of Scope Work, Laborer	HR	\$	35.00		\$ -
TV Inspection	on and Jet-Vac Cleaning		_		16	·
7	TV Storm Lines (includes DVD & Report)	LF	\$	5.00	176	\$ 880.00
	Visual Inspection (Pictures), per Project (During	E.	۸.	204.00		
8	Construction)	EA	\$	284.00		\$ -
9	Hydro-Excavation (Complete)	HR	\$	341.00		\$ -
- Control of the Cont	Cleaning (less than 25% full)	400	- 100	10.1410-7	Ii	l ve
10	12" PIPE- Cleaning less than 25% full	LF	\$	3.00		\$ -
11	15" PIPE- Cleaning less than 25% full	LF	\$	3.00		\$ -
12	18" PIPE- Cleaning less than 25% full	LF	\$	3.00		\$ -
13	21" PIPE- Cleaning less than 25% full	LF	\$	4.00		\$ -
14	24" PIPE- Cleaning less than 25% full	LF	\$	4.00		\$ -
15	30" PIPE- Cleaning less than 25% full	LF	\$	4.00		\$ -
16	36" PIPE - Cleaning less than 25% full	LF	\$	4.00		\$ -
17	42" PIPE- Cleaning less than 25% full	LF	\$	5.00	176	\$ 880.00
18	48" PIPE- Cleaning less than 25% full	LF	\$	6.00		\$ -
19	54" PIPE- Cleaning less than 25% full	LF	\$	8.00		\$ -
20	60" PIPE - Cleaning less than 25% full	LF	\$	10.00		\$ -
21	66" PIPE - Cleaning less than 25% full	LF	\$	12.00		\$ -
22	72" PIPE - Cleaning less than 25% full	LF	\$	13.00		\$ -
23	78" PIPE - Cleaning less than 25% full	LF	\$	16.00		\$ -
24	84" PIPE - Cleaning less than 25% full	LF	\$	18.00		\$ -
25	90" PIPE - Cleaning less than 25% full	LF	\$	19.00		\$ -
26	96" PIPE - Cleaning less than 25% full	LF	\$	20.00		\$ -
Miscellaneo	ous & Special Structures/Components					
194	4' Dia. Pedestal Top with Inlet Frame and Grate	EA	\$	1,135.00		\$ -
195	5' Dia. Pedestal Top with Inlet Frame and Grate	EA	\$	1,305.00		\$ -
196	6' Dia. Pedestal Top with Inlet Frame and Grate	EA	\$	1,418.00		\$ -
197	4' Dia. Pedestal Top with MH Ring & Cover	EA	_	1,135.00		\$ -
198	5' Dia. Pedestal Top with MH Ring & Cover	EA	\$	1,305.00		\$ -
199	6' Dia. Pedestal Top with MH Ring & Cover	EA	_	1,418.00	1	\$ 1,418.00
200	4' Dia Round to Square	EA		1,362.00		\$ -
201	5' Dia Round to Square	EA	_	1,503.00		\$ -
202	6' Dia Round to Square	EA	_	1,645.00		\$ -
	Precast Replacement Top Only for Single Wing, w/	27,	Ť	_,= .5.00		7
203	Ring & Cover, not including throat	EA	\$	1,418.00		\$ -
	Precast Replacement Top Only for Double Wing					
204	wiRing & Cover, not including throat	EA	\$	1,560.00		\$ -



ITEM	DESCRIPTION	UNIT	UNIT PRICE	QTY	EXTENDED PRICE
		Ĭ			
arthwork 8	& Grading		-0-00-00		
357	Tree Removal 6"-12"	EA	\$ 681.00		\$ -
358	Tree Removal 13"-23"	EA	\$ 1,702.00		\$ -
359	Tree Removal >23"	EA	\$ 2,836.00		\$ -
360	Clear & Grubbing	SY	\$ 6.00		\$ -
361	Channel Excavation	CY	\$ 18.00		\$ -
362	Additional Excavation	CY	\$ 12.00		\$ -
363	Haul-In Structural Fill Material	CY	\$ 23.00		\$ -
364	Haul-Off Soil Material	CY	\$ 23.00		\$ -
365	Finish Grading	SY	\$ 10.00	77.8	\$ 777.78
366	Trench Rock Excavation	CY	\$ 171.00		\$ -
367	Debris Removal	CY	\$ 23.00		\$ -
rosion Con	trol				
368	Stone Rip Rap Type I In Place	SY	\$ 52.00		\$ -
369	Stone Rip Rap Type III In Place	SY	\$ 40.00		\$ -
370	Stone Grouted Rip Rap 12" Installed	SY	\$ 63.00		\$ -
371	Install & Remove Type A Silt Fence	LF	\$ 3.00		\$ -
372	Install & Remove Type C Silt Fence	LF	\$ 4.00		\$ -
373	Install & Remove Type C Silt Fence - Alternative	LF	\$ 4.00		\$ -
374	Inlet Sediment Traps - Silt Fence Sd2	EA	\$ 57.00		\$ -
375	Rock Bags for curb inlet/CB sediment Protection	EA	\$ 114.00		\$ -
376	Install & Remove Orange Tree Save Fence	LF	\$ 4.00		\$ -
377	Gabion Structures (GDOT Section 626 & 809)	CY	\$ 681.00		\$ -
378	Permanent Soil Reinf Mat Installed	SY	\$ 8.00		\$ -
379	Organic Material Fiber Blanket Installed	SY	\$ 6.00		\$ -
380	Seed & Straw (Permanent Grassing)	SY	\$ 5.00		\$ -
381	Seed & Straw (Temporary Grassing)	SY	\$ 4.00	77.8	\$ 311.13
382	Sodding Complete-Fescue	SY	\$ 10.00		\$ -
383	Sodding Complete-Bermuda	SY	\$ 11.00		\$ -
384	Sodding Complete-Zoyzia	SY	\$ 14.00	77.8	\$ 1,088.89
385	Sodding Complete-Centipede	SY	\$ 11.00		\$ -
386	Topsoil Compete	CY	\$ 29.00		\$ -
387	Pine Straw	SY	\$ 11.00		\$ -
388	Straw Mulch	SY	\$ 10.00		\$ -
389	Tree Replacement 2-1/2" Hardwood, Installed	EA	\$ 256.00		\$ -
390	Tree Replacement 2-1/2" Pine, Installed	EA	\$ 256.00		\$ -
391	Shrub Replacement: 1 gallon, installed	EA	\$ 69.00		\$ -
392	Shrub Replacement: 3 gallon, installed	EA	\$ 91.00		\$ -
393	Shrub Replacement: 5 gallon, installed	EA	\$ 114.00		\$ -
394	Shrub Replacement: 7 gallon, installed	EA	\$ 142.00	\vdash	\$ -



ITEM	DESCRIPTION	UNIT	UN	IT PRICE	QTY	EXTEND	ED PRICE
395	Bedding Flower per flat of 18, installed	SY	\$	57.00		\$	
iscellanec	70 C = 20 W		I Y	5.100		7	
396	Connect to Existing Structures	EA	Ś	454.00		\$	-
397	Debris Removal, Tandem Dump Truck	Per Load	Ś	171.00	1	TSSSA .	171.0
398	Removal of Existing Non Drainage Structure	EA	\$	681.00		\$	
399	Removal of Existing Drainage Structure	EA	\$	908.00		\$	-
400	Remove Existing Pipe all Types and Sizes	LF	\$	57.00		\$	
401	Saw Cut Existing Pavements	LF	\$	5.00		\$	-
402	Stone #57	TON	\$	40.00		\$	
403	Surge Stone	TON	Ś	29.00		\$	<u> </u>
404	No. 3's and 4's Stone	TON	\$	29.00		\$	
405	Roll-Off Dumpster	Per Day	\$	397.00		\$	
403	Relocate Existing Residential Water Meter, Including	Per Day	7	337.00		ý.	-
406	Box	EA	Ś	284.00		\$	2
101.94	Install Thermal Barrier to protect water service line		1				200
407	or other utilities	SF	\$	2.00		\$	~
	Bypass pumping setup-equipment and hose		30.0	,		April 1	
408	placement	EA	\$	227.00		\$	·
409	4" Pumping Operation Time	HR	\$	57.00		\$	
410	6" Pumping Operation Time	HR	\$	69.00	12	\$	828.0
411	8" Pumping Operation Time	HR	\$	80.00		\$	9
412	10" Pumping Operation Time	HR	\$	91.00		\$	-
413	12" Pumping Operation Time	HR	\$	103.00		\$	i e
414	Temporary 4' Chain Link Fence	LF	\$	23.00		\$	-
	Remove and Replace Existing 4' Galvanized Standard			-			
	Chain Link Fence		5000			50000	
415	Residential	LF	\$	35.00		\$	100
	Remove and Replace Existing 5' Galvanized Standard Chain Link Fence						
416	Residential	LF	\$	40.00		\$	
410	Remove and Replace Existing 4' Black Vinyl Standard	FL	7	40.00		Ą	
	Chain Link Fence						
417	Residential	LF	\$	40.00		\$	12
	Remove and Replace Existing 5' Black Vinyl Standard						
	Chain Link Fence						
418	Residential	LF	\$	46.00		\$	12
419	Steel Plates (Typ. 5'x8' Size)	EA/Day	\$	227.00		\$	-
420	Reset Existing Headwall	EA	\$	341.00		\$	5
	10% Contingency					\$	5,086.9
	Total					\$	55,956.8