PROJECT :
 Town of Lyons Masterplan

 DRAINAGEWAY :
 Town of Lyons

 REACH :
 ALTA

 JURISDICTION :
 Town of Lyons

0011021011011	Town or Lyons							
REACH ID:	TL-ReachALTA	Enter Estimator Nam	e on Project Info	2016-11-22				
•			<u>-</u>					
					TOTAL			
DESCRIPTION		QUANTITY	UNIT	UNIT COST	COST	USER COMMENTS		
		QUARTITI	0.4	01111 0001	0001	OOLIT OOMMETTO		
Channel Improvements								
Excavation, Low Range		2824	C.Y.	\$14.00	\$39,536.00	Cut and fill on site		
Excavation, Mid Range		6975	C.Y.	\$30.00	\$209,250.00	Cut and haul off site		
Soil Riprap, Type M		1250	C.Y.	\$89.00	\$111,250.00	Riprap Rundown into diversion channel		
Capital Improvement Costs								
Pipe Culverts and Storm Drains					\$0.00			
Concrete Box Culverts					\$0.00			
Hydraulic Structures					\$0.00			
Channel Improvements					\$360,036.00			
Detention/Water Quality Facilities					\$0.00			
Removals					\$0.00			
Landscaping and Maintenance Improvements					\$0.00			
Special Items (User Defined)	Special Items (User Defined) \$0.00							
Subtotal Capital Improvement Costs								
Additional Capital Improvement Cos	sts							
Dewatering	·	\$3,600.36	L.S.		\$3,600.00			
Mobilization		5%			\$18,002.00			

Special items (User Defined)	\$0.00							
Subtotal Capital Improvement Costs	\$360,036.00							
Additional Capital Improvement Costs								
Dewatering	\$3,600.36 L.S. \$3,							
Mobilization	5%			\$18,002.00				
Traffic Control	\$0.00	L.S.		\$0.00				
Utility Coordination/Relocation	\$36,003.60	L.S.		\$36,004.00				
Stormwater Management/Erosion Control	5%			\$18,002.00				
Subtotal Additional Capital Improvement Costs				\$75,608.00				
Land Acquisition Costs								
ROW/Easements				\$0.00				
Subtotal Land Acquisition Costs				\$0.00				
Other Costs (percentage of Capital Improvement Costs)								
Engineering	15%			\$65,347.00				
Legal/Administrative	5%			\$21,782.00				
Contract Admin/Construction Management	10%			\$43,564.00				
Contingency	25%			\$108,911.00				
Subtotal Other Costs				\$239,604.00				
Total Capital Improvement Costs				\$675,248.00				
Master Plan Operation and Maintenand	ce Cost Summa	ry						
Description	Quantity	Unit	Unit Cost	Total Annual Cost				
Channel Maintenance (e.g. sediment & debris removal, erosion, tree & weed removal, etc.)	\$2,580.00							
Total Annual Operation and Maintenance Cost	\$2,580.00							
Effective Interest Rate	2.00%							
Total Operation and Maintenance Costs Over 50 Years	\$81,073.00							

Master Plan Operation and Maintenance Cost Summary								
Description Quantity Unit Unit Cost T								
Channel Maintenance (e.g. sediment & debris removal, erosion, tree & weed removal, etc.) 860 L.F. \$3.00								
Total Annual Operation and Maintenance Cost	Total Annual Operation and Maintenance Cost \$2,580.00							
Effective Interest Rate								
Total Operation and Maintenance Costs Over 50 Years				\$81,073.00				

 PROJECT:
 Town of Lyons Masterplan

 DRAINAGEWAY:
 Town of Lyons

 REACH:
 ALTB

 JURISDICTION:
 Town of Lyons

 REACH ID:
 T.ReachALTB

 Enter Estimator Name on Project Info
 DATE:
 2016-11-22

REACH .							
JURISDICTION:	Town of Lyons						
REACH ID:	TL-ReachALTB		Enter Estimator Nam	ne on Project Info	DATE:	2016-11-22	
						TOTAL	
DESCRIPTION			QUANTITY	UNIT	UNIT COST	COST	USER COMMENTS
			Q07	0	J 5551		00211 001111121110
Hydraulic Structures							
Sloping Drop Structures	B 44 140 141 (B)	N (6)					
Height (ft)	Bottom Width (ft)	Yn (ft)	1		\$258,492,14	\$258.492.00	
ь	90	5	2	EA EA	\$258,492.14 \$224,412.13	\$258,492.00 \$448,824.00	
	90	5		EA	\$224,412.13	\$448,824.00	
Channel Improvements							
Excavation, Low Range			5799	C.Y.	\$14.00	\$81,186.00	Cut and fill onsite
Excavation, Mid Range			10163	C.Y.	\$30.00	\$304,890.00	Cut and haul offsite
Landscaping and Maintenance	Improvements						
Trail/Path, Concrete (10' Width)			1650	L.F.	\$56.00	\$92,400.00	
Land Acquisition	_		-				
Easement/ROW Acquisition			5.10	ACRE	\$39,280.00	\$200,328.00	
·							•
	Maeter Dia	n Canital Impr	ovement Cost Sui	mmarı/			
Capital Improvement Costs	Wasterrie	an Capital Imple	overnent cost out	ililiai y			
Pipe Culverts and Storm Drains						\$0.00	
Concrete Box Culverts						\$0.00	
Hydraulic Structures						\$707,316.00	
Channel Improvements						\$386,076.00	
Detention/Water Quality Facilities						\$0.00	
Removals						\$0.00	
Landscaping and Maintenance Improvements						\$92,400,00	
Special Items (User Defined)						\$0.00	
Subtotal Capital Improvement Costs			\$1,185,792.00				
Additional Capital Improvement Co	sts						
Dewatering			\$11,857.92	L.S.		\$11,858.00	
Mobilization			5%			\$59,290.00	
Traffic Control			\$0.00	L.S.		\$0.00	
Utility Coordination/Relocation			\$118,579.20	L.S.		\$118,579.00	
Stormwater Management/Erosion Control 5%							
Subtotal Additional Capital Improvement Cos	sts	·	·	·		\$249,017.00	
Land Acquisition Costs							
DOM/F						£200 200 00	

Total Capital Improvement Costs					
Master Plan Operation and Maintenance					
Description	Total Annual Cost				
Hydraulic Structure Maintenance (e.g. debris removal, erosion, structural repairs, etc.)	tydraulic Structure Maintenance (e.g. debris removal, erosion, structural repairs, etc.) 3 EA \$634.00				
Channel Maintenance (e.g. sediment & debris removal, erosion, tree & weed removal, etc.)	1650	L.F.	\$3.00	\$4,950.00	
Trail Maintenance (e.g. structural repairs, crusher fines, etc.)	1650	L.F.	\$6.00	\$9,900.00	
Total Annual Operation and Maintenance Cost	\$16,752.00				
Effective Interest Rate	2.00%				
Total Operation and Maintenance Costs Over 50 Years				\$526,408.00	

\$200,328.00 \$200,328.00

\$215,221.00 \$71,740.00 \$143,481.00

ROW/Easements
Subtotal Land Acquisition Costs
Other Costs (percentage of Capital Improvement Costs)

Engineering
Legal/Administrative
Contract Admin/Construction Management

DRAINAGEWAY:	Town of Lyons									
REACH :	ALTC									
JURISDICTION :	Town of Lyons		F-4 F-44 N	Desired Info	2016-11-22					
REACH ID:	TL-ReachALTC		Enter Estimator Nam	ie on Project inio	DATE:	2010-11-22				
						TOTAL				
DESCRIPTION			QUANTITY	UNIT	UNIT COST	TOTAL COST	USER COMMENTS			
Pipe Culverts and Storm Drains										
Circular Pipes										
Diameter (in)	Length (ft)	No. of Barrels								
48-inch	50	No. of Barreis	100	L.F.	\$182.00	\$18,200.00				
Flare End Sections	30	2	100	E.I.	\$102.00	\$10,200.00				
Diameter (in)	Applicable	No. of Barrels								
48-inch	Yes	2	4	EA	\$2,611.00	\$10,444.00				
	100		-	E/ (Q2,011.00	ψ10, 111.00				
Hydraulic Structures										
Sloping Drop Structures						1				
Height (ft)	Bottom Width (ft)	Yn (ft)			210105010	2070 400 00				
4	40	4	3	EA	\$124,056.43	\$372,169.00				
Channel Improvements										
Excavation, Low Range			1912	C.Y.	\$14.00	\$26,768.00				
Excavation, Mid Range			18485	C.Y.	\$30.00	\$554,550.00				
Landscaping and Maintenance	Improvements									
Reclamation & seeding (native grasses)	,		1	ACRE	\$1,267.00	\$1,774.00				
				7.0.1.	ψ·,Σοι.ου	V 1,77 1.00				
Special Items (User Defined)										
Asphalt Repave	<user defined="" item<="" td=""><td>s</td><td>462</td><td>S.Y.</td><td>\$40.00</td><td>\$18,480.00</td><td></td></user>	s	462	S.Y.	\$40.00	\$18,480.00				
Land Acquisition										
Easement/ROW Acquisition			3.20	ACRE	\$156,250.00	\$500,000.00				
	Master Pla	n Capital Improv	ement Cost Sur	mmarv						
Capital Improvement Costs	WIGOTOT T IC	in oupitul improv	cilicit oost out	illinui y						
Pipe Culverts and Storm Drains						\$28,644.00				
Concrete Box Culverts						\$0.00				
						\$372,169.00				
Hydraulic Structures Channel Improvements										
Channel Improvements Detention/Water Quality Facilities										
Removals						\$0.00 \$0.00				
Landscaping and Maintenance Improvements						\$1,774.00				
Special Items (User Defined)						\$18,480.00				
Subtotal Capital Improvement Costs						\$1,002,385.00				
Additional Capital Improvement Costs	ete					\$1,002,365.00				
Dewatering	515		\$10,023.85	L.S.		\$10,024.00				
Mobilization			5%	L.J.		\$50,119.00				
Traffic Control			\$50,119.25	L.S.		\$50,119.00				
Utility Coordination/Relocation			\$100,238.50	L.S.		\$100,239.00				
Stormwater Management/Erosion Control			5%	L.J.		\$50,119.00				
Subtotal Additional Capital Improvement Cos	to		370			\$260,620.00				
Land Acquisition Costs						\$200,020.00				
ROW/Easements						\$500,000.00				
Subtotal Land Acquisition Costs				\$500,000.00						
Other Costs (percentage of Capital	Improvement Costs	\$500,000.00								
Engineering	improvement costs)		15%			\$189,451.00				
Legal/Administrative			5%			\$63,150.00				
Contract Admin/Construction Management			10%			\$63,150.00 \$126,301.00				
Contract Admin/Construction Wanagement 10% Contingency 25%					\$315,751.00					
	Connigency 2008 Subtotal Other Costs									
						\$694,653.00				
Total Capital Improvement Costs \$2,457,658.00										
Maste	r Plan Operation									
Description	Master Plan Operation and Maintenance Cost Summary Description Quantity Unit Unit Cost									
	Culvert Maintenance (e.g. sediment & debris removal, erosion at entrance/exit, structural repairs, e 100 L.F. \$1.00					Total Annual Cost \$100.00				
Hydraulic Structure Maintenance (e.g. debris re			3	EA	\$634.00	\$1,902.00				
Channel Maintenance (e.g. sediment & debris re			100	L.F.	\$3.00	\$300.00				
Total Annual Operation and Maintenance Cost						\$2,302.00				
Effective Interest Rate	interialice COSt					2.00%				
Effective Interest Kate										

Master Plan Operation and Maintenance					
Description	Total Annual Cost				
Culvert Maintenance (e.g. sediment & debris removal, erosion at entrance/exit, structural repairs, e	100	L.F.	\$1.00	\$100.00	
Hydraulic Structure Maintenance (e.g. debris removal, erosion, structural repairs, etc.) 3 EA \$634.00				\$1,902.00	
Channel Maintenance (e.g. sediment & debris removal, erosion, tree & weed removal, etc.)	\$300.00				
Total Annual Operation and Maintenance Cost	\$2,302.00				
Effective Interest Rate	2.00%				
Total Operation and Maintenance Costs Over 50 Years	\$72,337.00				

PROJECT : Town of Lyons Masterplan

DRAINAGEWAY:	Town of Lyons							
REACH :	ALTD							
JURISDICTION : REACH ID:	Town of Lyons		Enter Estimator Nam	o on Droinet Info	DATE:	2016-11-22		
REACH ID:	TL-ReachALTD		Enter Estimator Nam	e on Project into	DAIE:	2010-11-22		
						TOTAL		
DESCRIPTION			QUANTITY	UNIT	UNIT COST	COST	USER COMMENTS	
			QUANTITY	UNII	UNII COSI	COST	USER COMMENTS	
Pipe Culverts and Storm Drains								
Circular Pipes				,		<u> </u>		
Diameter (in)	Length (ft)	No. of Barrels				*		
18-inch Manholes and Inlets	50	20	1000	L.F.	\$68.00	\$68,000.00	Inlet Laterals	
Type B Manhole (Pipe Dia. 48" and larger, defle	ction < 10 degrees)		6	EA	\$15,208.00	\$91,248.00		
Storm Inlet, Type R/Type 14, 5-foot	ction < 10 degrees)		20	EA	\$5,830.00	\$116,600.00		
Concrete Box Culverts						***************************************		
Box Culvert Pipe								
Individual Box Span (ft)	Box Height (ft)	No. of Barrels	Length (ft)					
8	4	1	950	L.F.	\$810.44	\$769,918.00		
9	4	1	1400	L.F.	\$868.80	\$1,216,320.00		
Headwall and Toewalls								
Individual Box Span (ft)	No. of Barrels	Total Span (ft)						
8	1	10.00	1	EA	\$871.00	\$871.00		
9	1	11.00	1	EA	\$958.10	\$958.00		
Wingwalls (includes wingwalls on e						1		
Individual Box Span (ft) 8	Box Rise (ft)	No. of Barrels	1	EA	60 044 70	60 044 70		
9	4	1	1	EA EA	\$8,344.73 \$8,566.80	\$8,344.70 \$8,566.80		
	4	<u> </u>	<u> </u>	EA	\$0,300.00	\$0,300.00		
Special Items (User Defined)								
Curb and Gutter Asphalt Repaying	<user <user="" defined="" item="" item<="" td=""><td></td><td>3000 150</td><td>L.F. S.Y.</td><td>\$30.00 \$40.00</td><td>\$90,000.00 \$6,000.00</td><td></td></user>		3000 150	L.F. S.Y.	\$30.00 \$40.00	\$90,000.00 \$6,000.00		
	< User Defined Item	S	150	5.1.	\$40.00	\$6,000.00		
Land Acquisition Easement/ROW Acquisition	1		1.82	ACRE	A4 550 007 05	** *** *** ***		
Easement/ROW Acquisition			1.82	ACRE	\$1,552,387.85	\$2,825,346.00		
	M (D)	0 " 11	10 10					
	Master Pla	n Capital Improv	ement Cost Sur	mmary				
Capital Improvement Costs								
Pipe Culverts and Storm Drains Concrete Box Culverts						\$275,848.00 \$2,004,979.00		
Hydraulic Structures						\$0.00		
Channel Improvements						\$0.00		
Detention/Water Quality Facilities						\$0.00		
Removals						\$0.00		
Landscaping and Maintenance Improvements						\$0.00		
Special Items (User Defined)						\$96,000.00		
Subtotal Capital Improvement Costs						\$2,376,827.00		
Additional Capital Improvement Cos	sts		****	1.0		#00 T00 00		
Dewatering Mobilization			\$23,768.27 5%	L.S.		\$23,768.00 \$118,841.00		
Traffic Control			\$118,841.35	L.S.		\$118,841.00		
Utility Coordination/Relocation			\$237,682.70	L.S.		\$237,683.00		
Stormwater Management/Erosion Control			5%	2.0.		\$118,841.00		
Subtotal Additional Capital Improvement Cos				\$617,974.00				
Land Acquisition Costs								
ROW/Easements						\$2,825,346.00		
Subtotal Land Acquisition Costs						\$2,825,346.00		
Other Costs (percentage of Capital	Improvement Costs)		450/			£440,000,00		
Engineering			15%			\$449,220.00		
Legal/Administrative Contract Admin/Construction Management	5% 10%			\$149,740.00 \$299,480.00				
Contingency 25%						\$748,700.00		
Commigrately 23% 3746,700.00 Subtotal Other Costs \$1.647,140.00								
Total Capital Improvement Costs \$7,467,287.00								
Total Sapital Improvement Cost								
Mosts	Master Plan Operation and Maintenance Cost Summary							
	rian Operation	and waintenand			Unit C4	Total Arrest Co. 1		
	Description Quantity Unit Unit Cost Total Annual C Annhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 26 EA \$63.00 \$1,638.00							
Total Annual Operation and Ma		ar ropalla, bio.j	20		ψ00.00	\$1,638.00		
Effective Interest Rate	interiance Cost					2.00%		
Enecave interest rate						2.00%		

Master Plan Operation and Maintenance		
Description		
Manhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.)	\$1,638.00	
Total Annual Operation and Maintenance Cost		
Effective Interest Rate	2.00%	
Total Operation and Maintenance Costs Over 50 Years	\$51,472.00	

PROJECT: Town of Lyons Masterplan

DRAINAGEWAY: Town of Lyons

REACH: JURISDICTION: Town of Lyons

REACH ID: T-ReachALTE Enter Estimator Name on Project Infd DATE: 2016-11-22

					TOTAL	
DESCRIPTION		QUANTITY	UNIT	UNIT COST	COST	USER COMMENTS
Special Items (User Defined)						
Curb and Gutter	<user defined="" items<="" td=""><td>3600</td><td>L.F.</td><td>\$30.00</td><td>\$108,000.00</td><td></td></user>	3600	L.F.	\$30.00	\$108,000.00	
Asphalt Repave	<user defined="" items<="" td=""><td>1000</td><td>S.Y.</td><td>\$40.00</td><td>\$40,000.00</td><td></td></user>	1000	S.Y.	\$40.00	\$40,000.00	

Master Plan Capital Improve	ement Cost Sur	nmary		
Capital Improvement Costs				
Pipe Culverts and Storm Drains			\$0.00	
Concrete Box Culverts			\$0.00	
Hydraulic Structures			\$0.00	
Channel Improvements			\$0.00	
Detention/Water Quality Facilities			\$0.00	
Removals			\$0.00	
Landscaping and Maintenance Improvements			\$0.00	
Special Items (User Defined)			\$148,000.00	
Subtotal Capital Improvement Costs			\$148,000.00	
Additional Capital Improvement Costs				
Dewatering	\$20,000.00	L.S.	\$20,000.00	
Mobilization	5%		\$7,400.00	
Traffic Control	\$100,000.00	L.S.	\$100,000.00	
Utility Coordination/Relocation	\$100,000.00	L.S.	\$100,000.00	
Stormwater Management/Erosion Control	5%		\$7,400.00	
Subtotal Additional Capital Improvement Costs			\$234,800.00	
Land Acquisition Costs				
ROW/Easements			\$0.00	
Subtotal Land Acquisition Costs			\$0.00	
Other Costs (percentage of Capital Improvement Costs)				
Engineering	15%		\$57,420.00	
Legal/Administrative	5%		\$19,140.00	
Contract Admin/Construction Management	\$38,280.00			
Contingency	\$95,700.00			
Subtotal Other Costs			\$210,540.00	
Total Capital Improvement Costs	\$593,340.00			

 PROJECT :
 Town of Lyons Masterplan

 DRAINAGEWAY :
 Town of Lyons

 REACH :
 ALTF

 JURISDICTION :
 Town of Lyons

 REACH ID:
 T.-ReachALTF
 Enter Estimator Name on Project Info
 DATE :
 2016-11-22

DESCRIPTION	JURISDICTION : Town of Lyons									
DESCRIPTION QUANTITY	REACH ID:	TL-ReachALTF		Enter Estimator Nam	e on Project Inf	O DATE:	2016-11-22			
DESCRIPTION QUANTITY	7071									
Pipe Cutrets and Storm Drains Carpoter Pipes Carpot										
Description	DESCRIPTION			QUANTITY	UNIT	UNIT COST	COST	USER COMMENTS		
Description	Pine Culverts and Storm Drains									
Durretor (n)										
Section Sect	Diameter (in)	Length (ft)	No. of Barrels							
Select			1	825	L.F.	\$160.00	\$132,000.00	From 3rd Ave to Stickney Ave		
Select	36-inch	325	1	325	L.F.	\$137.00	\$44,525.00	East Stickney to 3rd Ave		
Second S	60-inch							From Stickney to Main St		
Part End Sections Part										
Districtor (h) Application No. of Barrols		50	20	1000	L.F.	\$68.00	\$68,000.00	Inlet Laterals		
## Seinch Yes 1 1 EA \$2,154.00 \$2,154.00 ## Seinch Yes 1 1 EA \$2,000 \$2,000 ## Seinch Yes 1 1 EA \$2,250.00 ## Seinch Yes 1 EA \$2,250.00 ## Seinch Yes 1 EA \$2,250.00 ## Seinch Yes Y										
Descriptor (p)			No. of Barrels							
Dismarker (in)			1							
Disorder (n)		Yes	1	1	EA	\$2,040.00	\$2,040.00			
Microsoft (Control of Control o	ricadirano	Annliaghla	No. of Parrola							
Demonstrate (n)				-	ΕΛ	\$2.22E.00	\$2.22E.00			
Diameter (ps)					EA	\$2,223.00	\$2,223.00			
Manbola 1		,	No. of Barrels							
Marcholes and latests Marchael State Marchael Marchael State Mar			1	1	EA	\$13,109,91	\$13,110.00			
Marchole Paris P					2,	ψ10,100.01	ψ10,110.00			
Type B Marketine (Pape Da. 48" and larger, deflection > 10 degrees) 1	Manhole, 5' Dia. (Pipe Dia. 36" - 42")			3	EA	\$4,942.00	\$14,826.00			
Type P Marchide (Pipe Da. 48 7 and burger deflection > 10 degrees) 1		ction < 10 degrees)								
Storm Intell. Type 8/Type 14, 540d					EA					
Agribal Rippine CoUser Defined Items 8375 S.Y. \$40.00 \$335.00.00	Storm Inlet, Type R/Type 14, 5-foot			20	EA	\$5,830.00	\$116,600.00			
Agribal Rippine CoUser Defined Items 8375 S.Y. \$40.00 \$335.00.00	Special Items (User Defined)									
Master Plan Capital Improvement Cost Summary		<user defined="" item<="" td=""><td>8</td><td>8375</td><td>S.Y.</td><td>\$40.00</td><td>\$335,000.00</td><td></td></user>	8	8375	S.Y.	\$40.00	\$335,000.00			
Capital Improvement Costs										
Capital Improvement Costs								•		
Capital Improvement Costs		Mactor Dia	n Canital Improv	rement Cost Sur	nmary					
Pipe Clubris and Storm Drains	Capital Improvement Costs	waster r it	an Capital Improv	rement oost our	IIIIai y					
S0.00 Hydratile Stuctures							\$1.116.030.00			
Hydratic Structures										
Channel Improvements										
Deterior/Water Quality Facilities \$0.00										
Second S										
Special laters (User Defined)	Removals									
Additional Capital Improvement Costs	Landscaping and Maintenance Improvements						\$0.00			
Additional Capital Improvement Costs State	Special Items (User Defined)									
Developing \$15,685.30 L.S. \$15,685.00 Modelization 5% \$78,477.00 Modelization 5% \$78,477.00 Modelization 5% \$78,477.00 Modelization 578,478.50 L.S. \$78,477.00 Modelization 578,478.50 L.S. \$78,477.00 Modelization 576,695.30 L.S. 576,953.00 Modelization 576,477.00 Modelization 5% \$78,477.00 Modelization 5% \$9.00 Modeliz	Subtotal Capital Improvement Costs						\$1,569,530.00			
McDitaration 5%		sts								
Traffic Control					L.S.					
Utility Coordinator/Rebocation										
Stormwater Management/Prosion Control 5% \$73.4.77.00										
Subtotal Additional Capital Improvement Costs					L.S.					
Land Acquisition Costs S0.00		te		370						
Subtoal Land Acquisition Costs Substitute Substitut		10					\$400,075.00			
Subtotal Land Acquisition Costs Substitution Costs Substitution Costs Other Costs (percentage of Capital Improvement Costs)							\$0.00			
Other Costs (percentage of Capital Improvement Costs)										
Engineering		Improvement Costs)								
Legal/Administrative	Engineering	15%			\$296,641.00					
Contract Admin/Construction Management 10%	Legal/Administrative									
Subtotal Other Costs	Contract Admin/Construction Management			10%						
Total Capital Improvement Costs Master Plan Operation and Maintenance Cost Summary Description Manhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) Description Quantity Unit Unit Cost S1,638.00 S1,638.00 S1,638.00 Total Annual Operation and Maintenance Cost \$1,638.00 Effective Interest Rate 2,00%										
Master Plan Operation and Maintenance Cost Summary Description Quantity Unit Unit Cost Total Annual Cost Manhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 26 EA \$83.00 \$1,638.0	Subtotal Other Costs									
Description Quantity Unit Unit Cost Total Annual Cost Marricle and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 26 EA \$63.00 \$1,638.00	Total Capital Improvement Cost	S	\$3,065,293.00							
Description Quantity Unit Unit Cost Total Annual Cost Marricle and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 26 EA \$63.00 \$1,638.00	7-3-3-3-1									
Description Quantity Unit Unit Cost Total Annual Cost Marricle and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 26 EA \$63.00 \$1,638.00	Macta	Plan Operation								
Manhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 26 EA \$83.00 \$1,638.00 Total Annual Operation and Maintenance Cost \$1,638.00 Effective Interest Rate 2.00%										
Total Annual Operation and Maintenance Cost \$1,638.00 Effective Interest Rate 2.00%										
Effective Interest Rate 2,00%										
Total Operation and Maintenance Costs Over 50 Years \$51,472.00										
	Total Operation and Maintenan	ce Costs Over 5) Years	\$51,472.00						

REACH :							
JURISDICTION :	Town of Lyons						
REACH ID:	TL-ReachALTG		Enter Estimator Nam	e on Project Info	DATE:	2016-11-22	
						•	•
						TOTAL	
DESCRIPTION			QUANTITY	UNIT	UNIT COST	COST	USER COMMENTS
			0001	COLIT COMMENTO			
Pipe Culverts and Storm Drains							
Circular Pipes							
Diameter (in)	Length (ft)	No. of Barrels					
66-inch	1300	1	1300	L.F.	\$335.00	\$435,500.00	From Main St to N St Vrain
18-inch	50	20	1000	L.F.	\$68.00	\$68,000.00	Inlet Laterals
Manholes and Inlets							
Type B Manhole (Pipe Dia. 48" and larger, defle	ction < 10 degrees)		3	EA	\$15,208.00	\$45,624.00	
Type P Manhole (Pipe Dia. 48" and larger, defle	ction > 10 degrees)		1	EA	\$19,010.00	\$19,010.00	
Storm Inlet, Type R/Type 14, 5-foot			20	EA	\$5,830.00	\$116,600.00	
Special Items (User Defined)							
Asphalt Repave	<user defined="" item<="" td=""><td>io.</td><td>940</td><td>S.Y.</td><td>\$40.00</td><td>\$37,600,00</td><td></td></user>	io.	940	S.Y.	\$40.00	\$37,600,00	
Curb and Gutter	1400	L.F.	\$30.00	\$42,000.00			
Ouro and Outlet	<user defined="" item<="" td=""><td>10</td><td>1400</td><td>L.F.</td><td>\$30.00</td><td>φ42,000.00</td><td></td></user>	10	1400	L.F.	\$30.00	φ42,000.00	
	Master Pla	an Capital Improv	rement Cost Sur	nmary			
Capital Improvement Costs							
Pipe Culverts and Storm Drains						\$684,734.00	
Concrete Box Culverts						\$0.00	
Hydraulic Structures						\$0.00	
Channel Improvements						\$0.00	
Detention/Water Quality Facilities						\$0.00	
Removals						\$0.00	
Landscaping and Maintenance Improvements						\$0.00	
Special Items (User Defined)						\$79,600.00	
Subtotal Capital Improvement Costs						\$764,334.00	
Additional Capital Improvement Cos	ete					\$104,004.00	
Dewatering	,,,		\$7,643.34	L.S.		\$7,643.00	
Mobilization			5%	2.0.		\$38,217.00	
Traffic Control			\$38,216.70	L.S.		\$38,217.00	
Utility Coordination/Relocation			\$76,433.40	L.S.		\$76,433.00	
Stormwater Management/Erosion Control			5%	L.O.		\$38,217.00	
Subtotal Additional Capital Improvement Cos	to		370			\$198,727.00	
Land Acquisition Costs	ıs					\$150,727.00	
ROW/Easements						\$0.00	
Subtotal Land Acquisition Costs						\$0.00	
Other Costs (percentage of Capital						\$0.00	
	Improvement Costs)		450/			0111 150 00	
Engineering			15%			\$144,459.00	
Legal/Administrative			5% 10%			\$48,153.00	
Contract Admin/Construction Management				\$96,306.00			
Contingency		\$240,765.00					
Subtotal Other Costs		\$529,683.00					
Total Capital Improvement Cost	S					\$1,492,744.00	
Master	Plan Operation	and Maintenand	ce Cost Summar	v			
Description	un operation	and manifestant	Quantity	Unit	Unit Cost	Total Annual Cost	
Manhole and Inlet Maintenance (e.g. sediment &	dahrie ramoval etrustur	al renaire etc.)	Quantity 24	EA	\$63.00	\$1,512.00	
		ai ropdii S, Elc.)	24	EA	φυ3.00		
Total Annual Operation and Ma	Intenance Cost					\$1,512.00	
Effective Interest Rate					· ·	2.00%	
			· · · · · · · · · · · · · · · · · · ·		· ·		

Master Plan Operation and Maintenance Cost Summary							
Quantity	Unit	Unit Cost	Total Annual Cost				
Manhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 24 EA \$63.00							
Total Annual Operation and Maintenance Cost \$1,512.00							
Effective Interest Rate							
Total Operation and Maintenance Costs Over 50 Years							
			Quantity Unit Unit Cost	Quantity Unit Unit Cost Total Annual Cost			

PROJECT: Town of Lyons Masterplan

DRAINAGEWAY: Town of Lyons

REACH: ALTQ

JURISDICTION: Town of Lyons

REACH ID: TL-ReachALTQ Enter Estimator Name on Project Infq DATE: 2016-11-22

					TOTAL	
DESCRIPTION		QUANTITY	UNIT	UNIT COST	COST	USER COMMENTS
Special Items (User Defined)						
Curb and Gutter	<user defined="" items<="" td=""><td>6080</td><td>L.F.</td><td>\$30.00</td><td>\$182,400.00</td><td></td></user>	6080	L.F.	\$30.00	\$182,400.00	

Master Plan Capit	al Improvement Cost Sur	nmary		
Capital Improvement Costs	·			
Pipe Culverts and Storm Drains			\$0.00	
Concrete Box Culverts			\$0.00	
Hydraulic Structures			\$0.00	
Channel Improvements			\$0.00	
Detention/Water Quality Facilities			\$0.00	
Removals			\$0.00	
Landscaping and Maintenance Improvements			\$0.00	
Special Items (User Defined)			\$182,400.00	
Subtotal Capital Improvement Costs			\$182,400.00	
Additional Capital Improvement Costs				
Dewatering		L.S.	\$0.00	
Mobilization	5%		\$9,120.00	
Fraffic Control	\$9,120.00	L.S.	\$9,120.00	
Jtility Coordination/Relocation	\$18,240.00	L.S.	\$18,240.00	
Stormwater Management/Erosion Control	5%		\$9,120.00	
Subtotal Additional Capital Improvement Costs			\$45,600.00	
Land Acquisition Costs				
ROW/Easements			\$0.00	
Subtotal Land Acquisition Costs			\$0.00	
Other Costs (percentage of Capital Improvement Costs)				
Engineering	15%		\$34,200.00	
Legal/Administrative	5%		\$11,400.00	
Contract Admin/Construction Management	10%		\$22,800.00	
Contingency	25%		\$57,000.00	
Subtotal Other Costs			\$125,400.00	
Total Capital Improvement Costs			\$353,400.00	

PROJECT: Town of Lyons Masterplan

DRAINAGEWAY: Town of Lyons

REACH: JURISDICTION: Town of Lyons

REACH ID: T-ReachALTI Enter Estimator Name on Project Infd DATE: 2016-11-22

DESCRIPTION		QUANTITY	UNIT	UNIT COST	TOTAL COST	USER COMMENTS
Special Items (User Defined)						
Curb and Gutter	<user defined="" items<="" td=""><td>3215</td><td>L.F.</td><td>\$30.00</td><td>\$96,450.00</td><td></td></user>	3215	L.F.	\$30.00	\$96,450.00	

Master Plan Capital Impro	vement Cost Sui	nmary		
Capital Improvement Costs				
Pipe Culverts and Storm Drains	\$0.00			
Concrete Box Culverts			\$0.00	
Hydraulic Structures			\$0.00	
Channel Improvements			\$0.00	
Detention/Water Quality Facilities			\$0.00	
Removals			\$0.00	
Landscaping and Maintenance Improvements			\$0.00	
Special Items (User Defined)			\$96,450.00	
Subtotal Capital Improvement Costs			\$96,450.00	
Additional Capital Improvement Costs				
Dewatering		L.S.	\$0.00	
Mobilization	5%		\$4,823.00	
Traffic Control	\$4,822.50	L.S.	\$4,823.00	
Utility Coordination/Relocation	\$9,645.00	L.S.	\$9,645.00	
Stormwater Management/Erosion Control	5%		\$4,823.00	
Subtotal Additional Capital Improvement Costs			\$24,114.00	
Land Acquisition Costs				
ROW/Easements			\$0.00	
Subtotal Land Acquisition Costs			\$0.00	
Other Costs (percentage of Capital Improvement Costs)				
Engineering	15%		\$18,085.00	
Legal/Administrative	5%		\$6,028.00	
Contract Admin/Construction Management	10%		\$12,056.00	
Contingency	25%		\$30,141.00	
Subtotal Other Costs			\$66,310.00	
Total Capital Improvement Costs	<u> </u>	<u> </u>	\$186,874.00	

 PROJECT:
 Town of Lyons Masterplan

 DRAINAGEWAY:
 Town of Lyons

 REACH:
 ALTJ

 JURISDICTION:
 Town of Lyons

 REACH ID:
 TL-ReachALTJ

 Enter Estimator Name on Project Info
 DATE:

 2016-11-22

DESCRIPTION	JURISDICTION :							
DESCRIPTION QUANTITY	REACH ID:							
DESCRIPTION QUANTITY								
Discrete (n)							TOTAL	
Discrete (n)	DESCRIPTION			OHANTITY	HINIT	LINIT COST	COST	USER COMMENTS
Description				QUARTITI	0.411	Oldir GGG1	000.	COLIT COMMENTO
Dismetter (rin) Length (ft) No. of Barries 1.000 L.F. 5172.00 592.00.00 From Name 9to Plan St.								
Selection	Circular Pipes							
Marcia S. Do. (Place Do. 30	Diameter (in)	Length (ft)	No. of Barrels					
Manuface Des Des March Description	36-inch	600	1	600	L.F.	\$137.00	\$82,200.00	From Main St to Park St
Special terms Special	18-inch	50	36	1800	L.F.	\$68.00	\$122,400.00	Inlet Laterals
Type P Menhale (Pipe Da. 4.8" and larger, defection of lodgress) 2	Manholes and Inlets							
Sommisk Type RType 1.5, Hotel	Manhole, 5' Dia. (Pipe Dia. 36" - 42")			3	EA	\$4,942.00	\$14,826.00	
Concrete Box Culverts Box Celebrat Box Height (ft) No. of Barrels Length (ft)	Type P Manhole (Pipe Dia. 48" and larger, defle	ction > 10 degrees)		2	EA	\$19,010.00	\$38,020.00	
Bost Cultural Pipe	Storm Inlet, Type R/Type 14, 5-foot			36	EA	\$5,830.00	\$209,880.00	
Bost Cultural Pipe	Concrete Box Culverts							
Individual Box Span (ft)								
Hestinal Toronals Individual Box Span (ft) No. of Barrels Total Span (ft) E		Day Unight (ft)	No. of Porrole	Longth (#)	ı			
Headwall and Toxewalls Individual Box Span (ft) No. of Barrols Total Span (ft) EA \$968.10 \$968.00					1.5	\$040.44	\$40E 220 00	
Individual Box Span (1)		3		300	L.F.	\$610.44	\$405,220.00	
Mingrahile (includes wingrahile on alther site of channel and concrete perce)		No. of Demois	T-4-1 C (4)	1	Г	ı		
Wildowalds Includes willowalds on alther adds of channel and concrete apron)	iliulviuuai Box opaii (it)	140. UI Daireis		1	EΔ	\$058.10	\$058.00	
Individual Box Span (t)	Wingwalls (includes wingwalls on a	ither side of chappel a			EA	φουο. 10	φ830.00	
Special Remon Special Polithron Special Remon Special						T		
Special Items (User Defined)				1	ΕΛ	\$6 004 72	\$6 004 70	
Applied Recover Court and Counter Court Service Court and Counter Court and Counter Court and Counter Court and Counter Court Service Court	-	3			EA	\$0,094.73	\$0,894.70	
Master Plan Capital Improvement Costs	Special Items (User Defined)							
Master Plan Capital Improvement Costs Poe Culteris and Storm Draine Concrete Exo Culteris Storic St								
Capital Improvement Costs	Curb and Gutter	<user defined="" item<="" td=""><td>S</td><td>1000</td><td>L.F.</td><td>\$30.00</td><td>\$30,000.00</td><td></td></user>	S	1000	L.F.	\$30.00	\$30,000.00	
Capital Improvement Costs								
Capital Improvement Costs		Master Pla	an Capital Improv	ement Cost Sur	mmarv			
Section	Canital Improvement Costs	muotor i it	an Gupitui impioi	omont Goot Ga.				
Concrete Box Culver's							\$467 326 00	
Substitution Subs								
Channel Improvements								
Detention/Water Quality Facilities								
Emmonals								
Subtotal Capital Improvement Costs Sau 2,000								
Section Sect								
Subtotal Capital Improvement Costs								
Additional Capital Improvement Costs S9,423.99								
Devalering		oto					\$342,333.00	
Mobilization S% S47,120.00		0.5		\$0.422.00	1.0		E0 424 00	
Stratic Control St7,119.95 L.S. St7,120.00 St84,29.90 L.S. St7,120.00 St84,29.90 L.S. St7,120.00 St84,29.90 L.S. St7,120.00 St84,29.90 L.S. St7,120.00 St84,29.00 St84,20.40 St					L.O.			
Substatal Additional Capital Improvement Costs Substatal Acquisition Costs Substatal Land Acquisition Costs Substatal Capital Land Acquisition Costs Substatal Capital Land Cost Substatal Capital Land Capital Land Cost Substatal Capital Land					1.8			
Stormwater Management/Erosion Control 5% \$47,720.00								
Subtotal Additional Capital Improvement Costs \$245,024.00					L.O.			
Land Acquisition Costs \$0.00		ts						
SOUR Subtotal Land Acquisition Costs SOUR Subtotal Land Acquisition Costs SOUR Subtotal Land Acquisition Costs SUBTOTAL Costs (percentage of Ceptal Improvement Costs)							4270,027.00	
Subtotal Land Acquisition Costs							\$0.00	
Other Costs (percentage of Capital Improvement Costs)								
Engineering 15% \$178.113.00 Legal/Administrative 5% \$39.371.00 Corriact Admin/Construction Management 10% \$118,742.00 Corriace Admin/Construction Management 10% \$118,742.00 Corriace Admin/Construction Management 25% \$296,865.00 Subtotal Other Costs \$250,865.00 Total Capital Improvement Costs \$1,840,505.00 Master Plan Operation and Maintenance Cost Summary		Improvement Costs)					\$0.00	
Engil Administrative 5% \$59,371.00		improvement costs)		15%	<u> </u>		\$178 113 00	
Contract Admin/Construction Management								
Contingency 25% \$296,856.00								
Subtotal Other Costs Total Capital Improvement Costs S1,840,505.00 Master Plan Operation and Maintenance Cost Summary Description Marriols and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 41 EA \$63.00 \$2.583.00								
Total Capital Improvement Costs \$1,840,505.00 Master Plan Operation and Maintenance Cost Summary Description Quantity Unit Unit Cost Total Annual Cost Naminole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 41 EA \$63.00 \$2,583.00								
Master Plan Operation and Maintenance Cost Summary Description Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 4f EA \$63.00 \$2,583.00								
Description Quantity Unit Unit Cost Total Annual Cost Manhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 41 EA \$63.00 \$2,583.00	Total Capital Improvement Cost	S					\$1,840,505.00	
Description Quantity Unit Unit Cost Total Annual Cost Manhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 41 EA \$63.00 \$2,583.00								
Description Quantity Unit Unit Cost Total Annual Cost Manhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 41 EA \$63.00 \$2,583.00	Master	Plan Operation	and Maintenand	ce Cost Summar	v			
Manhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.) 41 EA \$63.00 \$2,583.00						Unit Cost	Total Annual Cost	
		debris removal, structur	al repairs, etc.)					
Total Affilial Operation and Maintenance COSt \$2,303.00								
Effective Interest Rate 2,00%		internative COST						
Total Operation and Maintenance Costs Over 50 Years \$81,167.00	Total Operation and Maintenan	ce Costs Over 5) Years				\$81,167.00	

PROJECT: Town of Lyons Masterplan

DRAINAGEWAY: Town of Lyons

REACH: ALTK

JURISDICTION: Town of Lyons

REACH ID: T-ReachALTK Enter Estimator Name on Project Infd DATE: 2016-11-22

REACH ID:	TL-ReachALTK		Enter Estimator Nam	e on Project Info	DATE :	2016-11-22	
						TOTAL	
DESCRIPTION			QUANTITY	UNIT	UNIT COST	COST	USER COMMENTS
			QUANTITI	ONT	ONIT COST	0031	OSEIX COMMENTS
Pipe Culverts and Storm Drains							
Circular Pipes	Longth (ft)	No. of Barrels				1	
Diameter (in) 30-inch	Length (ft) 600	NO. OI Balleis	600	L.F.	\$114.00	\$68,400.00	Bohn Ct. to Estes Ct.
36-inch	750	1	750	L.F.	\$137.00	\$102,750.00	Estes Ct. to McConnell Dr
18-inch	50	35	1750	L.F.	\$68.00	\$119,000.00	Inlet Lateral
36-inch	660	1	660	L.F.	\$137.00	\$90,420.00	S McConnell
60-inch	100	<u>.</u> 1	100	L.F.	\$304.00	\$30,400.00	
72-inch	950	1	950	L.F.	\$456.00	\$433,200.00	
Headwalls							
Diameter (in)	Applicable	No. of Barrels					
60-inch	Yes	1	1	EA	\$2,022.00	\$2,022.00	
72-inch	Yes	1	1	EA	\$2,436.00	\$2,436.00	
Wingwalls (includes concrete apror	n)						
Diameter (in)		No. of Barrels					
60-inch		11	1	EA	\$11,306.20	\$11,306.00	
72-inch		1	1	EA	\$14,706.38	\$14,706.00	
Manholes and Inlets				F. 1	00.077.00	044.00=00	
Manhole, 4' Dia. (Pipe Dia. < 36")			3	EA	\$3,675.00	\$11,025.00	
Manhole, 5' Dia. (Pipe Dia. 36" - 42")	nation + 10 d)		7	EA	\$4,942.00	\$34,594.00	
Type B Manhole (Pipe Dia. 48" and larger, deflet Type P Manhole (Pipe Dia. 48" and larger, deflet			<u>5</u> 1	EA EA	\$15,208.00 \$19,010.00	\$76,040.00 \$19,010.00	
Storm Inlet, Type R/Type 14, 5-foot	ection > 10 degrees)		35	EA	\$5,830.00	\$19,010.00	
			33	LA	φ5,630.00	\$204,030.00	
Special Items (User Defined)							
Asphalt Repave	<user defined="" item<="" td=""><td>S</td><td>630</td><td>S.Y.</td><td>\$40.00</td><td>\$25,200.00</td><td></td></user>	S	630	S.Y.	\$40.00	\$25,200.00	
	Master Pla	an Capital Improv	ement Cost Sun	nmary			
Capital Improvement Costs							
Pipe Culverts and Storm Drains						\$1,219,359.00	
Concrete Box Culverts						\$0.00	
Hydraulic Structures						\$0.00	
Channel Improvements						\$0.00	
Detention/Water Quality Facilities Removals						\$0.00 \$0.00	
Landscaping and Maintenance Improvements						\$0.00	
Special Items (User Defined)						\$25,200.00	
Subtotal Capital Improvement Costs						\$1,244,559.00	
Additional Capital Improvement Co	sts					* 1,2 1 1,000.00	
Dewatering			\$12,445.59	L.S.		\$12,446.00	
Mobilization			5%	-		\$62,228.00	
Traffic Control			\$62,227.95	L.S.		\$62,228.00	
Utility Coordination/Relocation			\$124,455.90	L.S.		\$124,456.00	
Stormwater Management/Erosion Control			5%			\$62,228.00	
Subtotal Additional Capital Improvement Co	sts					\$323,586.00	
Land Acquisition Costs							
ROW/Easements						\$0.00	
Subtotal Land Acquisition Costs						\$0.00	
Other Costs (percentage of Capital	Improvement Costs)		450/			#00F 000 00	
Engineering			15%			\$235,222.00	
Legal/Administrative Contract Admin/Construction Management	5% 10%			\$78,407.00 \$156,815.00			
Contingency			25%			\$392,036.00	
Subtotal Other Costs		\$862,480.00					
Total Capital Improvement Costs							
Total Capital Improvement Costs							
80 4	u Dlan On anation	and Maintenant	- Coot Comme				
	er Plan Operation						
Description	9 dobrio romanal at a d	ural rapaira -t- \	Quantity	Unit	Unit Cost	Total Annual Cost	
Manhole and Inlet Maintenance (e.g. sediment		urai repairs, etc.)	51	EA	\$63.00	\$3,213.00	
Total Annual Operation and Main	itenance Cost					\$3,213.00	
Effective Interest Rate						2.00%	
Total Operation and Maintenance	e Costs Over 50	Years				\$100,964.00	

DRAINAGEWAY: Town of Lyons					
REACH : ALTL JURISDICTION : Town of Lyons					
	Enter Estimator Nam	o on Droinet Info		2016-11-22	1
REACH ID: TL-ReachALTL	Eliter Estillator Nam	e on Project into	DATE:	2010-11-22	I
				TOTAL	
DESCRIPTION	QUANTITY	UNIT	UNIT COST	COST	USER COMMENTS
Channel Improvements					
Excavation, Low Range	888	C.Y.	\$14.00	\$12,437.00	Cut and fill onsite
Excavation, Mid Range	235	C.Y.	\$30.00	\$7,050.00	
Special Items (User Defined)					
Concrete for Diversion Flume <user defined="" items<="" td=""><td>740</td><td>C.Y.</td><td>\$760.00</td><td>\$562,400.00</td><td></td></user>	740	C.Y.	\$760.00	\$562,400.00	
Energy Dissapator <user defined="" items<="" td=""><td>1</td><td>L.S.</td><td>\$7,500.00</td><td>\$7,500.00</td><td></td></user>	1	L.S.	\$7,500.00	\$7,500.00	
Master Plan Capital Impro	vement Cost Sur	mmarv			
Capital Improvement Costs					
Pipe Culverts and Storm Drains				\$0.00	
Concrete Box Culverts				\$0.00	
Hydraulic Structures				\$0.00	
Channel Improvements				\$19,487.00	
Detention/Water Quality Facilities				\$0.00	
Removals				\$0.00	
Landscaping and Maintenance Improvements				\$0.00	
Special Items (User Defined)				\$569,900.00	
Subtotal Capital Improvement Costs				\$589,387.00	
Additional Capital Improvement Costs		ı		1	
Dewatering	\$5,893.87	L.S.		\$5,894.00	
Mobilization	5%			\$29,469.00	
Traffic Control Utility Coordination/Relocation	\$29,469.35	L.S.		\$29,469.00	
Utility Coordination/Relocation Stormwater Management/Erosion Control	\$58,938.70 5%	L.S.		\$58,939.00 \$29,469.00	
Subtotal Additional Capital Improvement Costs	5%			\$153,240.00	
Land Acquisition Costs				\$155,240.00	
ROW/Easements				\$0.00	
Subtotal Land Acquisition Costs				\$0.00	
Other Costs (percentage of Capital Improvement Costs)				4	
Engineering	15%			\$111,394.00	
Legal/Administrative	5%			\$37,131.00	
Contract Admin/Construction Management	10%			\$74,263.00	
Contingency	25%			\$185,657.00	
Subtotal Other Costs	\$408,445.00				
Total Capital Improvement Costs	\$1,151,072.00				
Master Plan Operation and Maintenan	ce Cost Summar	v			
Description	Quantity	Unit	Unit Cost	Total Annual Cost	
Culvert Maintenance (e.g. sediment & debris removal, erosion at entrance/exit, structural repairs,		L.F.	\$1.00	\$1,400.00	
Total Annual Operation and Maintenance Cost	\$1,400.00				
Effective Interest Rate					
				2.00%	
Total Operation and Maintenance Costs Over 50 Years				\$43,993.00	

REACH:							
JURISDICTION:							
REACH ID:	TL-ReachALTM		Enter Estimator Name	on Project Info	DATE:	2016-11-22	
DESCRIPTION			QUANTITY	UNIT	UNIT COST	TOTAL COST	USER COMMENTS
Pipe Culverts and Storm Drains		001110					
Circular Pipes							
Diameter (in)	Longth (ft)	No. of Barrels		T			
54-inch	Length (ft) 1000	No. or barreis	1000	L.F.	\$274.00	\$274.000.00	
18-inch	50	32	1600	L.F.	\$68.00	\$108,800.00	
30-inch	450	1	450	L.F.	\$114.00	\$51,300.00	
Headwalls	400		400	L.I.	ψ114.00	φ31,300.00	
Diameter (in)	Applicable	No. of Barrels					
54-inch	Yes	1	1	EA	\$1,820.20	\$1,820.00	
Wingwalls (includes concrete apror				E, (\$1,0E0.E0	\$1,0E0.00	
Diameter (in)	,	No. of Barrels					
54-inch		1	1	EA	\$11,120,20	\$11,120,00	
Manholes and Inlets					ψ11,120.23	ψ11,120.00	
Type P Manhole (Pipe Dia. 48" and larger, defle	ction > 10 degrees)		4	EA	\$19,010.00	\$76,040.00	
Storm Inlet, Type R/Type 14, 5-foot			32	EA	\$5,830.00	\$186,560.00	
Special Items (User Defined)			Ü.		40,000.00	ψ100,000.00	
			maa	0.1/	040.00	004 000 00	
Asphalt Repave	<user defined="" item<="" td=""><td>S</td><td>790</td><td>S.Y.</td><td>\$40.00</td><td>\$31,600.00</td><td></td></user>	S	790	S.Y.	\$40.00	\$31,600.00	
	Master Pla	an Capital Improv	ement Cost Sun	nmary			
Capital Improvement Costs							
Pipe Culverts and Storm Drains						\$709,640.00	
Concrete Box Culverts						\$0.00	
Hydraulic Structures						\$0.00	
Channel Improvements						\$0.00	
Detention/Water Quality Facilities						\$0.00	
Removals						\$0.00	
Landscaping and Maintenance Improvements						\$0.00	
Special Items (User Defined)						\$31,600.00	
Subtotal Capital Improvement Costs						\$741,240.00	
Additional Capital Improvement Cos	sts						
Dewatering			\$7,412.40	L.S.		\$7,412.00	
Mobilization			5%			\$37,062.00	
Traffic Control			\$37,062.00	L.S.		\$37,062.00	
Utility Coordination/Relocation			\$74,124.00	L.S.		\$74,124.00	
Stormwater Management/Erosion Control			5%			\$37,062.00	
Subtotal Additional Capital Improvement Cos	ts					\$192,722.00	
Land Acquisition Costs							
ROW/Easements						\$0.00	
Subtotal Land Acquisition Costs						\$0.00	
Other Costs (percentage of Capital	improvement Costs)						
Engineering			15%			\$140,094.00	
Legal/Administrative			5%			\$46,698.00 \$93,396.00	
Contract Admin/Construction Management 10% Contingency 25%							
Contingency		\$233,491.00					
Subtotal Other Costs		\$513,679.00					
Total Capital Improvement Cost	s	\$1,447,641.00					
	- Di O''		- 0 + 0				
Description Master	rian Operation	and Maintenand	Quantity	Unit	Unit Cost	Total Annual Cost	
Manhole and Inlet Maintenance (e.g. sediment &	dobrio roma al atruatur	al rapairo, eta \	Quantity 36	EA	\$63.00	\$2,268.00	
		ai repairs, etc.)	30	EA	\$03.00		
Total Annual Operation and Ma	Intenance Cost					\$2,268.00	
	no Costo Over E) Voore				2.00%	
Total Operation and Maintenand	ce costs over 5	u tears				\$71,269.00	

PROJECT : Town of Lyons Masterplan

DRAINAGEWAY : Town of Lyons

ΔI TN					
	Enter Estimator Nam	e on Project Info	DATE ·	2016-11-22	7
IL-ROBCIPETT			DAIL.		J
				TOTAL	
	OLIANTITY	LINIT	LINIT COST		USER COMMENTS
	QUARTITI	Oitii	Olili GGGI	0001	COLIT COMMENTO
	0770	0.1/	24400	\$40.500.00	0
					Cut and fill onsite Cut and haul offsite
1	3890	C. T.	\$30.00	\$116,700.00	Cut and hauf offsite
<user defined="" items<="" td=""><td>1</td><td>L.S.</td><td>\$7,500.00</td><td>\$7,500.00</td><td></td></user>	1	L.S.	\$7,500.00	\$7,500.00	
Master Plan Capital Im	provement Cost Sur	mmary			
				20.00	
ete				V-120,000.00	
,,,	\$4.265.80	L.S.		\$4.266.00	
		L.S.		\$21,329.00	
	\$42,658.00	L.S.		\$42,658.00	
	5%			\$21,329.00	
its				\$110,911.00	
				\$0.00	
				\$0.00	
Improvement Costs)					
	25%				
5	\$833,112.00				
DI 0 11 155 1	0.10				
Plan Operation and Mainter					
nount program at antropos/out attt					
	Jans, q 1450	L.F.	\$1.00		
Intenance Cost					
	2.00%				
ce Costs Over 50 Years				\$9,113.00	
1	ALTN Town of Lyons TL-ReachALTN	ALTN	ALTN	ALTN Town of Lyons TL-ReachALTN Enter Estimator Name on Project Info DATE :	ALTN Town of Lyons TL-ReachALTN Enter Estimator Name on Project Info DATE : 2016-11-22

 PROJECT:
 Town of Lyons Masterplan

 DRAINAGEWAY:
 Town of Lyons

 REACH:
 ALTO

 JURISDICTION:
 Town of Lyons

 REACH ID:
 TL-ReachALTO
 Enter Estimator Name on Project Info
 DATE:
 2016-11-22

DESCRIPTION			QUANTITY	UNIT	UNIT COST	TOTAL COST	USER COMMENTS
			QUANTITI	UNII	UNII COSI	C031	USER CONINIENTS
Pipe Culverts and Storm Drai	ns						
Circular Pipes							
Diameter (in)	Length (ft)	No. of Barrels		i			
42-inch	1200	1	1200	L.F.	\$160.00	\$192,000.00	From Ewald Ave to confluence area
18-inch	50	40	2000	L.F.	\$68.00	\$136,000.00	Inlet Laterals
Flare End Sections							
Diameter (in)	Applicable	No. of Barrels					
42-inch	Yes	1	1	EA	\$2,154.00	\$2,154.00	
Manholes and Inlets							
Manhole, 5' Dia. (Pipe Dia. 36" - 42")			4	EA	\$4,942.00	\$19,768.00	
Storm Inlet, Type R/Type 14, 5-foot			40	EA	\$5,830.00	\$233,200.00	
Special Items (User Defined)							
Asphalt Repave	<user defined="" item<="" td=""><td>ns</td><td>780</td><td>S.Y.</td><td>\$40.00</td><td>\$31,200.00</td><td></td></user>	ns	780	S.Y.	\$40.00	\$31,200.00	
b and Gutter <user defined="" items<="" td=""><td>1000</td><td>L.F.</td><td>\$30.00</td><td>\$30,000.00</td><td>Curb and Gutter on Prospect east of 5th Ave.</td></user>		1000	L.F.	\$30.00	\$30,000.00	Curb and Gutter on Prospect east of 5th Ave.	

Master Plan Capital Improv				
Capital Improvement Costs				
Pipe Culverts and Storm Drains	\$583,122.00			
Concrete Box Culverts	\$0.00			
Hydraulic Structures	\$0.00			
Channel Improvements	\$0.00			
Detention/Water Quality Facilities	\$0.00			
Removals	\$0.00			
Landscaping and Maintenance Improvements	\$0.00			
Special Items (User Defined)	\$61,200.00			
Subtotal Capital Improvement Costs	\$644,322.00			
Additional Capital Improvement Costs				
Dewatering	\$6,443.22	L.S.	\$6,443.00	
Mobilization	5%		\$32,216.00	
Traffic Control	\$32,216.10	L.S.	\$32,216.00	
Utility Coordination/Relocation	\$64,432.20	L.S.	\$64,432.00	
Stormwater Management/Erosion Control	5%		\$32,216.00	
Subtotal Additional Capital Improvement Costs			\$167,523.00	
Land Acquisition Costs				
ROW/Easements	\$0.00			
Subtotal Land Acquisition Costs	\$0.00			
Other Costs (percentage of Capital Improvement Costs)				
Engineering	15%		\$121,777.00	
Legal/Administrative	5%		\$40,592.00	
Contract Admin/Construction Management	10%		\$81,185.00	
Contingency	25%		\$202,961.00 \$446,515.00	
Subtotal Other Costs				
Total Capital Improvement Costs				

Master Plan Operation and Maintenance					
Description	Quantity	Unit	Unit Cost	Total Annual Cost	
Manhole and Inlet Maintenance (e.g. sediment & debris removal, structural repairs, etc.)	44	EA	\$63.00	\$1,386.00	
Total Annual Operation and Maintenance Cost	\$1,386.00				
Effective Interest Rate					
Total Operation and Maintenance Costs Over 50 Years					

PROJECT: Town of Lyons Masterplan

DRAINAGEWAY:	Town of Lyons							
REACH:	ALTQ						į	
JURISDICTION:	Town of Lyons	1					ļ	
REACH ID:	TL-ReachALTC)	Enter Estimator Name	on Project Info	DATE:	2016-11-22	·	
							•	
DESCRIPTION			QUANTITY	UNIT	UNIT COST	TOTAL COST	USER COMMENTS	
Concrete Box Culverts			40.000					
Box Culvert Pipe								
Individual Box Span (ft)	B 11 1 1 4 (6)		1 4 60					
	Box Height (ft)	No. of Barrels	Length (ft)		04 400 04	0000 000 00		
12	4	4	150	L.F.	\$4,188.64	\$628,296.00		
Headwall and Toewalls		T						
Individual Box Span (ft)	No. of Barrels	Total Span (ft)	_					
12		52.00	2	EA	\$4,794.40	\$9,589.00		
Wingwalls (includes win		channel and concrete a	pron)					
Individual Box Span (ft)	Box Rise (ft)	No. of Barrels						
12	4	4	2	EA	\$17,893.73	\$35,787.50		
Special Items (User Defined)								
Asphalt Repave	<user defined="" items<="" td=""><td>-</td><td>380</td><td>S.Y.</td><td>\$40.00</td><td>\$15,200.00</td><td></td></user>	-	380	S.Y.	\$40.00	\$15,200.00		
	Master Pla	n Capital Improv	vement Cost Sur	nmary				
Capital Improvement Co		ii Capitai iiiipi O	vernent oost our	minary				
Pipe Culverts and Storm Drains	StS					\$0.00		
	trains							
Concrete Box Culverts						\$673,673.00		
Hydraulic Structures						\$0.00		
Channel Improvements						\$0.00		
Detention/Water Quality Facilities						\$0.00		
Removals						\$0.00		
Landscaping and Maintenance Improvements						\$0.00		
Special Items (User Defined)						\$15,200.00		
Subtotal Capital Improvement Costs						\$688,873.00		
Additional Capital Impro	vement Costs							
Dewatering			\$6,888.73	L.S.		\$6,889.00		
Mobilization			5%			\$34,444.00		
Traffic Control			\$34,443.65	L.S.		\$34,444.00		
Utility Coordination/Relocation			\$68,887.30	L.S.		\$68,887.00		
Stormwater Management/Erosion Control			5%			\$34,444.00		
Subtotal Additional Capital Improvement Costs \$179,108.00								
Land Acquisition Costs								
ROW/Easements \$0.00								
Subtotal Land Acquisition Costs								
	Subtotal Land Acquisition Costs \$0.00 Other Costs (percentage of Capital Improvement Costs)							
Engineering			15%			\$130,197.00		
Legal/Admini strative			5%			\$43,399.00		
Contract Admin/Construction Management			10%			\$86,798.00		
Contingency			25%			\$216,995.00		
Subtotal Other Costs								
Subtotal Other Costs \$477,389.00 Total Capital Improvement Costs \$1,345,370.00								
Total Capital Improvement Costs	•					ψ1,343,370.00		
(
Maste								
Description			Quantity	Unit	Unit Cost	Total Annual Cost		
Culvert Maintenance (e.g. sediment & debris remove	val, erosion at entrance/ex	it, structural repairs, etc.)	150	L.F.	\$1.00	\$150.00		
Total Annual Operation and Maintenance Cost						\$150.00		
Effective Interest Rate 2,00%								
Total Operation and Maintenance Costs Over 50 Years					\$4,714.00			
Total Operation and Maintenance Costs Over 50 Tears					\$4,714.UU			