2020 CAPITAL BUDGET

a) Project Summary by Department

Development Services

Economic Development	Projects Under Consideration	
Culture	Projects Under Consideration	
Museum	Projects Under Consideration	
Theatre	Projects Under Consideration	Pre-Approval
Arts Centre	Projects Under Consideration	
Planning	Projects Under Consideration	
Design	Projects Under Consideration	
Engineering	Projects Under Consideration	

Corporate Services

ITS	Projects Under Consideration	Pre-Approval
Finance	Projects Under Consideration	
Sustainability Office	Projects Under Consideration	
Asset Management	Projects Under Consideration	Pre-Approval

Community and Fire Services

Fire and Emergency	Projects Under Consideration	

2020 CAPITAL BUDGET

Community and Fire Services (cont'd)

Recreation Services	Projects Under Consideration	Pre-Approval
Markham Public Library	Projects Under Consideration	Pre-Approval
Operations-Roads	Projects Under Consideration	
Operations-Parks	Projects Under Consideration	Pre-Approval
Operations-Fleet	Projects Under Consideration	
Operations-Utility Inspection	Projects Under Consideration	Pre-Approval
Operations-Business & Tech	Projects Under Consideration	
ES – Infrastructure	Projects Under Consideration	Pre-Approval
ES – Stormwater	Projects Under Consideration	Pre-Approval
ES – Waste	Projects Under Consideration	
ES – Waterworks	Projects Under Consideration	Pre-Approval

Corporate Wide

Corporate Wide	Projects Under Consideration	

CITY OF MARKHAM
2020 CAPITAL AND OTHER PROGRAMS BUDGET
by Department

#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
Projects Under Consideration								
Development Services								
Economic Development								
20001	Markham Economic Strategy	237,800					237,800	Non DC-Growth
	TOTAL Economic Development	**237,800**	-	-	-	-	**237,800**	
Culture								
20002	Culture Public Art Master Plan Implementation Phase 1 of 5	249,300	45,000				204,300	Public Art Acq. Res. Fund
	TOTAL Culture	**249,300**	**45,000**	-	-	-	**204,300**	
Museum								
20003	Museum - Strickler Barn Phase 2 of 2	83,400		83,400				
20004	Museum - Various Buildings	332,100		332,100				
20005	Museum Maintenance	83,500		83,500				
	TOTAL Museum	**499,000**	-	**499,000**	-	-	-	
Theatre								
20006	Theatre-Building Maintenance	42,200		42,200				
20007	Theatre-Courtyard Replacement (Upper & Lower)	203,900		203,900				Note 1
20008	Theatre-Dressing Room Refurbishment	250,700		250,700				Note 2
20010	Theatre-Parking Lot Swing Gates	15,300		15,300				
20011	Theatre-Stage Equipment & Maintenance	20,000		20,000				
20012	Theatre-Theatrical Lighting Fixture Replacement	195,400		195,400				
	TOTAL Theatre	**727,500**	-	**727,500**	-	-	-	
Arts Centres								
20013	Exhibition Galleries & Programs Maintenance	41,700		41,700				
20014	McKay Accessibility Consultant	15,000		15,000				
	TOTAL Arts Centres	**56,700**	-	**56,700**	-	-	-	
Planning								
20015	Consolidated Zoning By-Law - LPAT Defense and Refinement	521,200					521,200	80 % Build. Fees, 20% Dev. Fees
20016	Consultant Studies	92,000			82,800		9,200	Development Fees
20017	Designated Heritage Property Grant Program	30,000					30,000	Heritage Reserve
20018	Heritage Façade Improvements/Sign Replacement	20,000	20,000					
20019	Housing Summit	20,000			18,000		2,000	Development Fees
20020	Ontario Heritage Conference Host May 2020	20,400	20,400					
20021	Planning & Design Staff Salary Recovery	669,300			669,300			
20022	York Region Employment Survey	39,000			35,100		3,900	Development Fees
	TOTAL Planning	**1,411,900**	**40,400**	-	**805,200**	-	**566,300**	
Design								
20024	Box Grove Community Park - Construction	8,875,400			7,987,860		887,540	Park Cash-in-Lieu
20025	Cornell Community Park - Construction	9,329,100			8,396,190		932,910	Park Cash-in-Lieu

CITY OF MARKHAM
2020 CAPITAL AND OTHER PROGRAMS BUDGET
by Department

#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
20026	Cornell Parkette - Design & Construction	553,800			498,420		55,380	Park Cash-in-Lieu
20027	Leitchcroft Building - Construction	664,600			598,140		66,460	Park Cash-in-Lieu
20028	Leitchcroft Townhouse Park - Design & Construction	836,800			753,120		83,680	Park Cash-in-Lieu
20029	Wismer McCowan Woodlot Park - Design & Construction	1,269,200			1,142,280		126,920	Park Cash-in-Lieu
20030	York Downs Park - Design & Construction	791,900			712,710		79,190	Park Cash-in-Lieu
	TOTAL Design	**22,320,800**	**-**	**-**	**20,088,720**	**-**	**2,232,080**	
	Engineering							
20031	404 North District Water Supply (PD7) - EA	429,600			429,600			
20032	Active Transportation Awareness Program	86,500			56,225		30,275	Non-DC Growth
20033	Denison Street Extension Environmental Assessment	514,900			514,900			
20034	Downstream Improvements Program (Construction)	1,234,900		432,215	802,685			
20035	Downstream Improvements Program (Design)	319,100		111,685	207,415			
20036	Honda Blvd Extension to 19th Avenue (Design)	401,200			401,200			
20037	Main Street Unionville Road Reconstruction (Design)	496,900					496,900	Non-DC Growth
20038	Markham Centre Trails - Phase 1 (Construction)	965,000			627,250		337,750	Section 37
20039	Markham Centre Trails - Phase 2 (Design)	230,500			149,825		80,675	Section 37
20040	New Traffic Signals - Kirkham/New Delhi (D & C)	344,100			344,100			
20041	Pedestrian Accessibility Improvements Program–Phase 6 of 7	601,200			390,780		210,420	Non-DC Growth
20042	Rouge Valley Trail (Kennedy Road North) – Design	156,600			101,790		54,810	Non- DC Growth
20043	Servicing & Environmental Study- Markville Secondary Plan	443,000			443,000			
20044	Sidewalk Program (Construction)	1,500,000			1,500,000			
20045	Sidewalk Program (Design)	519,500			519,500			
20046	Smart Commute Markham-Richmond Hill	76,300			76,300			
20047	Staff Salary Recovery	713,400			713,400			
20048	Streetlight Program (Construction)	764,800			764,800			
20049	Streetlighting Program (Design)	175,100			175,100			
20050	Traffic Asset Replacement	196,900		196,900				
20051	Traffic Operational Improvements	88,900	88,900					
20052	Transportation Study – Markville Secondary Plan	230,500			230,500			
	TOTAL Engineering	**10,488,900**	**88,900**	**740,800**	**8,448,370**	**-**	**1,210,830**	
	TOTAL Development Services	**35,991,900**	**174,300**	**2,024,000**	**29,342,290**	**-**	**4,451,310**	
	Corporate Services							
	ITS							
20054	Museum Mimsy Upgrade	18,600	18,600					
20055	ITS - Recreation Fitness Training Management Application	10,300	10,300					
20056	ITS - Recreation Facility Tablet Project	30,500	30,500					
20057	Digital Literacy Strategy Implementation – Phase 2 of 2	43,900		43,900				
20058	Library Online Registration & Mobile Printing	25,600	25,600					
20059	ITS-Backflow Prevention Program (Software Enhancements)	26,000					26,000	Waterworks Reserve
20061	ITS Life Cycle Asset Replacement	3,273,900		2,712,130			561,770	$168.5k WW, $393.2k Dev. Fee
	TOTAL ITS	**3,428,800**	**85,000**	**2,756,030**	**-**	**-**	**587,770**	

CITY OF MARKHAM
2020 CAPITAL AND OTHER PROGRAMS BUDGET
by Department

#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
Finance								
20062	Bill 108 - Community Benefits Charge By-law	129,200			116,280		12,920	Non-DC Growth
20063	Internal Project Management	928,800			928,800			
	TOTAL Finance	**1,058,000**	**-**	**-**	**1,045,080**	**-**	**12,920**	
Sustainability Office								
20064	Facility Energy Management Program	337,800					337,800	MECO
	TOTAL Sustainability Office	**337,800**	**-**	**-**	**-**	**-**	**337,800**	
Asset Management								
20065	8100 Warden Facility Repair and/or Replacement Projects	337,800		337,800				
20066	Accessibility Retrofit Program	137,700		137,700				
20067	Building Condition Audit - Full Time Staff	144,000		144,000				
20068	Building Envelope/Structural Review	56,100		56,100				
20069	Civic Centre Repair and/or Replacement Projects	345,000		345,000				
20070	Corporate Security Operations & System Replacements	701,700		701,700				
20071	Designated Substances Management	69,400		69,400				
20072	Fire Facilities Repair and/or Replacement Projects	233,200		233,200				
20073	Fire Station Signs - Phase 2 of 2	121,400		121,400				
20074	Library Facilities Repair and/or Replacement Projects	127,700		127,700				
20075	Municipal Building Backflow Prevention Testing	20,400		20,400				
20076	Operations Facilities Repair and/or Replacement Projects	764,500		764,500				
20077	Operations Fuel Sites Monitoring	75,200		75,200				
20078	Other Facilities Repair and/or Replacement Projects	211,300		211,300				
20080	PVC Salt Dome Demolition	212,400		212,400				
20081	Recycling Depots Repair and/or Replacement Projects	31,300		31,300				
20082	Roofing Maintenance and Repair	143,400		143,400				
20083	Roofing Replacement Projects	410,700		410,700				
20084	Satellite Community Centre Repair and/or Replacement	143,200		143,200				
20085	Tennis Clubhouse Repair and/or Replacement Projects	38,600		23,780			14,820	Tennis Club
	TOTAL Asset Management	**4,325,000**	**-**	**4,310,180**	**-**	**-**	**14,820**	
	TOTAL Corporate Services	**9,149,600**	**85,000**	**7,066,210**	**1,045,080**	**-**	**953,310**	
Community & Fire Services								
Fire & Emergency Services								
20086	Air Cylinders 45+ Minutes Replacement	88,600		88,600				
20087	Bunker Gear Replacement	168,900		168,900				
20088	Defibrillator & Accessories Replacement	75,300		75,300				
20089	Firefighting Tools & Equipment Replacement	100,000		100,000				
20090	Hazardous Materials - Decontamination Tent	20,900		20,900				
20091	Hose Rolling Equipment Replacement	12,300		12,300				
20092	Rapid Intervention Rescue Packs Replacement	8,700		8,700				
20093	Replacement of Equipment due to Staff Retirements	95,300		95,300				
20094	Rescue Equipment - Powered Hydraulics Replacement	93,500		93,500				

CITY OF MARKHAM
2020 CAPITAL AND OTHER PROGRAMS BUDGET
by Department

#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
20095	Rescue Equipment - Water Rescue Equipment Replacement	42,600		42,600				
	TOTAL Fire & Emergency Services	**706,100**	**-**	**706,100**	**-**	**-**	**-**	
	Recreation Services							
20096	Angus Glen C.C. Arena Condenser Replacement	203,500		203,500				
20097	Angus Glen C.C. Flooring Replacement	75,700		75,700				
20098	Angus Glen C.C. Gym Curtain Replacement	34,600		34,600				
20099	Angus Glen C.C. Lifeguard Chair Replacement	9,300		9,300				
20100	Angus Glen C.C. Rooftop Condenser Replacement	132,300		132,300				
20101	Armadale C.C. Fire Prevention System Replacement	218,500		218,500				
20102	Armadale C.C. Millwork Replacement	132,200		132,200				
20103	Armadale C.C. Rooftop Unit Replacement	136,600		136,600				
20104	Centennial C.C. Gas Monitors Replacement	10,000		10,000				
20105	Centennial C.C. HVAC Replacement	56,000		56,000				
20106	Centennial C.C. Pool Equipment Replacement	21,500		21,500				
20107	Centennial C.C. Saunas Replacement	17,200		17,200				
20108	Centennial C.C. Surge Drum Replacement	37,000		37,000				
20109	Centennial C.C. Washroom Heater Replacement	6,400		6,400				
20110	Clatworthy Arena Brine Pump Replacement	23,400		23,400				
20111	Cornell C.C. Aerial Platform Replacement	19,700		19,700				
20112	Cornell C.C. CO2 Controller Replacement	9,300		9,300				
20113	Cornell C.C. Drinking Fountains Replacement	15,000		15,000				
20114	Cornell C.C. Floor Grates Replacement	8,000		8,000				
20115	Cornell C.C. Glass Grommets Replacement	21,400		21,400				
20116	Cornell C.C. Library Carpet Replacement	34,000		34,000				
20118	Cornell C.C. Power Washer Replacement	8,400		8,400				
20119	Cornell C.C. Pumps Replacement	84,000		84,000				
20120	Cornell C.C. Shower Valves Replacement	17,200		17,200				
20121	Crosby C.C. Garbage Fence Enclosure Replacement	8,000		8,000				
20122	Crosby C.C. Millwork Replacement	47,600		47,600				
20123	Crosby C.C. Pump Replacement	36,600		36,600				
20124	ECO Camp Chimo Equipment Replacement	35,700		35,700				
20125	Heintzman House Boiler Replacement	24,000		24,000				
20126	Heintzman House Fireplace Gas Insert	7,100		7,100				
20128	Heintzman House Stove Replacement	8,100		8,100				
20129	Markham Village C.C. Ceiling Tile Replacement	13,100		13,100				
20130	Markham Village C.C. Marquee Replacement	14,800		14,800				
20131	Markham Village C.C. Shower Tiles Replacement	36,300		36,300				
20132	Milliken Mills C.C. Arena Boards and Frame Replacement	203,500		203,500				
20133	Milliken Mills C.C. Arena Heat Exchanger Replacement	14,800		14,800				
20134	Milliken Mills C.C. Arena Heater Replacement	24,400		24,400				
20135	Milliken Mills C.C. Arena Pad Replacement	859,900		859,900				
20136	Milliken Mills C.C. Arena Scoreboard Replacement	15,400		15,400				
20137	Milliken Mills C.C. Arena Spectator Seating Replacement	29,200		29,200				
20138	Milliken Mills C.C. Furnace Replacement	95,100		95,100				
20140	Milliken Mills C.C. Parking Lot Light Replacement	142,500		142,500				

CITY OF MARKHAM
2020 CAPITAL AND OTHER PROGRAMS BUDGET
by Department

#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
20141	Milliken Mills Soccer Dome Door Replacement	34,100		34,100				
20142	Morgan Pool Equipment Replacement	24,600		24,600				
20143	Morgan Pool Mechanical Replacement	21,800		21,800				
20144	Mt. Joy C.C. Low Emissivity Ceiling Replacement	37,300		37,300				
20145	Mt. Joy C.C. Overhead Doors Replacement	9,800		9,800				
20146	Old Unionville Library Mechanical Replacement	22,400		22,400				
20147	Old Unionville Library Vinyl Tile Replacement	20,400		20,400				
20148	Pan Am Centre Lighting Automation	60,600		60,600				
20149	Pan Am Centre Vestibule	467,300					467,300	From Existing Pan Am Construction
20150	Pan Am Heat Exchanger Reconstruction	28,000		28,000				
20151	Pan Am Pool Equipment Replacement	16,300		16,300				
20152	Recreation AED Program Replacement	18,400		18,400				
20153	Recreation Aquatic Equipment Replacement	85,500		85,500				
20154	Recreation Aquatics Safety Audit	20,400		20,400				
20155	Recreation Autonomous Floor Scrubbers	186,900	93,200	93,700				
20156	Recreation Building Automation System (BAS) Replacement	374,300		374,300				
20157	Recreation Fitness Equipment Replacement	190,300		190,300				
20159	Recreation Painting Projects	134,900		134,900				
20160	Recreation Pool Grouting Replacement	51,900		51,900				
20161	Recreation Program Equipment Replacement	94,400		94,400				
20162	Recreation Rubber Floor Replacement	171,000		171,000				
20163	Recreation Security System Replacement	457,200		457,200				
20164	Recreation Sound System Replacement	50,000		50,000				
20165	Recreation Tables and Chairs Replacement	54,700		54,700				
20166	Rouge River C.C. Pump and Exhaust Fan Replacement	24,900		24,900				
20167	Thornhill C.C. Filter Spa Replacement	10,000		10,000				
20168	Thornhill C.C. Rink Board and Arena Netting Replacement	210,400		210,400				
20169	Thornlea and Clatworthy Shower Replacement	25,900		25,900				
20170	Thornlea Pool Deck Drain Piping Replacement	39,700		39,700				
20171	Unionville Train Station HVAC Replacement	11,000		11,000				
20172	Unionville Train Station Wood Floor Refurbishment	11,000		11,000				
20173	Water Street Senior Centre Facility Improvements	16,700		16,700				
	TOTAL Recreation Services	**5,929,400**	**93,200**	**5,368,900**	**-**	**-**	**467,300**	
	Markham Public Library							
20174	Customer Service Improvement (E-Resources)	55,000	55,000					
20175	Heritage Garbage Enclosure (Unionville Library)	19,300	19,300					
20176	Library Collections	1,198,400		1,198,400				Note 3
20177	Library Furniture, Equipment & Shelving Replacement	143,800		143,800				
20178	Markham Centre Library - Phase 1 of 2	71,200			64,080		7,120	Non-DC Growth
	TOTAL Markham Public Library	**1,487,700**	**74,300**	**1,342,200**	**64,080**	**-**	**7,120**	
	Operations - Roads							
20179	Asphalt Resurfacing	6,873,800					6,873,800	Gas Tax
20180	Boulevard Repairs	57,300		57,300				
20181	Bridge Structure Preventative Maintenance - Roads	25,300		25,300				

CITY OF MARKHAM
2020 CAPITAL AND OTHER PROGRAMS BUDGET
by Department

#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
20182	City Owned Entrance Feature Rehabilitation/Replacement	280,800		280,800				
20183	City Owned Fence Replacement Program	128,800		128,800				
20184	Don Mills Storm Channel	15,000		15,000				
20185	Emergency Repairs	174,000		174,000				
20186	Guiderail- Install/Repair/Upgrade	114,800		114,800				
20187	Incremental Growth Related Winter Maintenance Vehicles	450,000			450,000			
20188	Localized Repairs - Curb & Sidewalk	859,200		859,200				
20189	Localized Repairs - Parking Lots	119,200		119,200				
20191	Parking Lots- Rehabilitation	208,600		208,600				
20192	Railway Crossing Rehabilitation -Castlemore	163,600		163,600				
20193	Retaining Wall Repair Program	78,700		78,700				
20194	Storm Water Retention Pond Maintenance Program	51,900		51,900				
	TOTAL Operations - Roads	**9,601,000**	**-**	**2,277,200**	**450,000**	**-**	**6,873,800**	
	Operations - Parks							
20195	Backstop and Outfield Fence Replacement at Armadale Pk	39,300		39,300				
20196	Bleachers (Metal) Replacement - Grandview Bleachers	11,200		11,200				
20198	Boulevard/Park Trees Replacement	352,300		352,300				
20199	Bridge Structure Preventative Maintenance in Parks	25,300		25,300				
20200	Cemetery Fence Repair at Thornhill Cemetery	44,100		44,100				
20201	City Park Furniture / Amenities	171,600		171,600				
20202	Court Resurfacing/Reconstruction/Maintenance	403,400		403,400				
20203	Cricket Pitch Outfield Screening Repl. at Yarl Cedarwood	82,400		82,400				
20204	Decorative Fountain Replacement at Swan Lake Pk	84,300		84,300				
20205	Goal Posts Replacement	20,200		20,200				
20206	Huntington Pk Floodlights, Poles & Cross Arms Replacemt.	176,500		176,500				
20207	Markham Trees for Tomorrow	122,100	122,100					
20208	Parks Interpretative Signage Implementation - Phase 1 of 3	101,800	101,800					
20211	Recycling Containers Replacement (Yr 3 of 10)	16,600		16,600				
20212	Rejuvenation of Community Centres Landscapes-Year 3 of 3	63,700		63,700				
20213	Relamping & Fixtures Refurbishment	27,000		27,000				
20214	Shade Structure Refurbishment	78,500		78,500				
20215	Sportsfield Maintenance & Reconstruction	137,600		137,600				
20216	Stairway Repairs	247,200		247,200				
20217	Tennis Courts Fence Replacement at Armadale Pk	60,600		60,600				
20218	Tomlinson Waterplay Replacement	337,000		337,000				
	TOTAL Operations - Parks	**2,602,700**	**223,900**	**2,378,800**	**-**	**-**	**-**	
	Operations - Fleet							
20219	Corporate Fleet Growth - Non-Fleet	10,200			10,200			
20220	Corporate Fleet Refurbishing	37,800		37,800				
20221	Corporate Fleet Replacement - Fire	918,800		918,800				
20222	Corporate Fleet Replacement - Ice Resurfacing Machine	100,200		100,200				
20223	Corporate Fleet Replacement - Non-Fire	710,500		710,500				
20224	Corporate Fleet Replacement - Waterworks	378,400					378,400	Waterworks
20225	New Fleet - Parks	98,900			98,900			

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#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
20226	New Fleet - Roads	296,600			296,600			
	TOTAL Operations - Fleet	**2,551,400**	**-**	**1,767,300**	**405,700**	**-**	**378,400**	
	Operations - Utility Inspection & Survey							
20227	German Mills Meadow - Equipment Maintenance	110,100		110,100				
20229	Survey Instrument Upgrade/Replacement	18,900		18,900				
20230	Survey Monument Replacement	27,700		27,700				
	TOTAL Operations - Utility Inspection & Survey	**156,700**	**-**	**156,700**	**-**	**-**	**-**	
	Operations - Business & Technical Services							
20231	Growth Related Parks Improvements	438,800			394,920		43,880	Non-DC Growth
20232	Public Realm-Markham's Shared Places Our Spaces	221,600	221,600					
	TOTAL Operations - Business & Technical Services	**660,400**	**221,600**	**-**	**394,920**	**-**	**43,880**	
	Environmental Services - Infrastructure							
20233	Bridges and Culverts - Condition Inspection	68,800		68,800				
20234	Confined Space Assessment for Culverts	25,900		25,900				
20235	MNRF Monitoring for Capital Projects at Water Crossings	27,000		27,000				
20236	Storm Sewer Pipes - Rehabilitation	645,100		165,735			479,365	Gas Tax
20237	Storm/Sanitary Sewer & Sanitary Laterals CCTV Inspection	1,585,200		228,200			1,357,000	Waterworks Reserve
20238	Stormwater Pumping Stations - Maintenance	106,300		106,300				
20239	Streetlight Poles & Cable Replacement (Varley Village)	1,828,800		1,828,800				Note 4
20240	Streetlights - Miscellaneous Requests	152,600	152,600					
20241	Streetlights - Pole Condition Inspection Program	92,000		92,000				
20242	Streetlights - Poles Replacement Program	124,200		124,200				
20243	Streetlights - Underground Cable Condition Inspection	187,200		187,200				
20244	Structures Program-Full-time Staff	145,500		145,500				
20245	Structures Rehabilitation (5 Structures) - Design & Const.	457,200		457,200				Note 5
20246	Toogood Dam - Structural Inspection	20,100		20,100				
	TOTAL Environmental Services - Infrastructure	**5,465,900**	**152,600**	**3,476,935**	**-**	**-**	**1,836,365**	
	Environmental Services - Stormwater							
20247	German Mills Settlers Park Erosion Protection-Cost Sharing	223,900		223,900				
20248	Oil Grit Separators (OGS) - Inspection and Cleaning	215,400		215,400				
20249	SWM Pond Cleaning - Ponds ID#25 & ID#67	1,094,200					1,094,200	Gas Tax
20250	Water Quality Improvements and Geese Control	27,600		27,600				
20251	Water Quality Monitoring	27,600		27,600				
	TOTAL Environmental Services - Stormwater	**1,588,700**	**-**	**494,500**	**-**	**-**	**1,094,200**	
	Environmental Services - Waste							
20253	Incremental Growth Related Waste Management Vehicles	100,000			100,000			
	TOTAL Environmental Services - Waste	**100,000**	**-**	**-**	**100,000**	**-**	**-**	

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#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
Environmental Services - Waterworks								
20254	Calibration of Water Quality Model	193,400					193,400	Waterworks Reserve
20255	Cathodic Protection of Cast Iron Watermains	378,900					378,900	Waterworks Reserve
20257	CI Watermain Replacement - Construction & CA	5,729,700					5,729,700	Waterworks Reserve
20259	Curb Box Inspection and Replacement Program	614,100					614,100	Waterworks Reserve
20260	I/I Investigation - Carlton Pump Station Catchment Area	101,800					101,800	Waterworks Reserve
20261	Sanitary Sewers - Rehabilitation	910,600					910,600	Waterworks Reserve
20262	Suspended Watermains - Condition Inspection	52,900					52,900	Waterworks Reserve
20263	Update of Wastewater System Hydraulic Model	213,700					213,700	Waterworks Reserve
20264	Wastewater Flow Monitoring - Annual Program	152,600					152,600	Waterworks Reserve
20266	Water Meters - Replacement Program	996,700					996,700	Waterworks Reserve
20267	Waterworks Equipment	73,200					73,200	Waterworks Reserve
	TOTAL Environmental Services - Waterworks	**9,417,600**	**-**	**-**	**-**	**-**	**9,417,600**	
	TOTAL Community & Fire Services	**40,267,600**	**765,600**	**17,968,635**	**1,414,700**	**-**	**20,118,665**	
Corporate Wide								
20268	Corporate Capital Contingency	2,591,300	18,460	393,965	1,831,960		346,915	Various Other Ext'l & Int'l, Note 6
	TOTAL Corporate Wide	**2,591,300**	**18,460**	**393,965**	**1,831,960**	**-**	**346,915**	
	TOTAL Projects Under Consideration	**88,000,400**	**1,043,360**	**27,452,810**	**33,634,030**	**-**	**25,870,200**	
Pre-Approved Projects								
Development Services								
Theatre								
20007	Theatre-Courtyard Replacement (Upper & Lower)	20,000		20,000				Note 1
20008	Theatre-Dressing Room Refurbishment	40,000		40,000				Note 2
20009	Theatre-HVAC Quantity Survey	10,200		10,200				
	TOTAL Theatre	**70,200**		**70,200**				
	TOTAL Development Services	**70,200**		**70,200**				
Corporate Services								
ITS								
20053	E-Ticketing and Payment System Platform Replacement	750,200		750,200				
20060	Enterprise Scheduling Software Solution	183,200		183,200				
	TOTAL ITS	**933,400**		**933,400**				
Asset Management								

CITY OF MARKHAM
2020 CAPITAL AND OTHER PROGRAMS BUDGET
by Department

#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
20079	Parking Lot Light Replacement	490,600		490,600				
	TOTAL Asset Management	**490,600**		**490,600**	-		-	
	TOTAL Corporate Services	**1,424,000**	-	**1,424,000**	-	-	-	
	Community & Fire Services							
	Recreation Services							
20117	Cornell C.C. Parking Garage Rehabilitation Phase 1 of 2	248,900	248,900					
20127	Heintzman House Floor Refinishing	18,100		18,100				
20139	Milliken Mills C.C. Lobby Enhancement	597,100		70,500			526,600	Gas Tax
20158	Recreation Lighting Project Replacement	250,600		250,600				
	TOTAL Recreation Services	**1,114,700**		**339,200**			**526,600**	
	Markham Public Library							
20176	Library Collections	1,598,200		1,598,200				Note 3
	TOTAL Markham Public Library	**1,598,200**		**1,598,200**				
	Operations - Parks							
20197	Block Pruning Initiative - Year 1 of 3	1,017,600	1,017,600					
20209	Pathways Resurfacing	139,800		139,800				
20210	Playstructure Replacement	841,900		841,900				
	TOTAL Operations - Parks	**1,999,300**	**1,017,600**	**981,700**				
	Operations - Utility Inspection & Survey							
20228	German Mills Meadow - Environmental Monitoring Program	330,400		330,400				
	TOTAL Operations - Utility Inspection & Survey	**330,400**		**330,400**				
	ES - Infrastructure							
20239	Streetlight Poles & Cable Replacement (Varley Village)	362,000		362,000				Note 4
20245	Structures Rehabilitation (5 Structures) - Design & Const.	150,000		150,000				Note 5
	TOTAL ES - Infrastructure	**512,000**		**512,000**				
	ES - Stormwater							
20252	West Thornhill Flood Control Implementation - Ph 3A Cons.	10,868,900					10,868,900	Gas Tax and Stormwater Reserve
	TOTAL ES - Stormwater	**10,868,900**					**10,868,900**	
	ES - Waterworks							
20256	CI Watermain Rehabilitation - Design	437,100					437,100	Waterworks Reserve
20258	CI Watermain Replacement-West Thornhill Ph 3A	5,897,500					5,897,500	Waterworks Reserve
20265	Wastewater System Instruments - Replacement	15,300					15,300	Waterworks Reserve
	TOTAL ES - Waterworks	**6,349,900**					**6,349,900**	

CITY OF MARKHAM
2020 CAPITAL AND OTHER PROGRAMS BUDGET
by Department

#	Project Description	Total	Tax	Life Cycle	DC - Reserve	DC - Developer	Other	Description of Other Funding
	TOTAL Community & Fire Services	**22,773,400**	**1,017,600**	**3,761,500**	**-**	**-**	**17,745,400**	
	Corporate Wide							
	Corporate Wide							
20268	Corporate Capital Contingency	94,000	11,000	31,400			51,600	Gas Tax; Note 6
	TOTAL Corporate Wide	**94,000**	**11,000**	**31,400**	**-**	**-**	**51,600**	
	TOTAL Corporate Wide	**94,000**	**11,000**	**31,400**	**-**	**-**	**51,600**	
	TOTAL Pre-Approval	**24,361,600**	**1,028,600**	**5,287,100**	**-**	**-**	**17,797,000**	
	TOTAL Projects	**112,362,000**	**2,071,960**	**32,739,910**	**33,634,030**	**-**	**43,667,200**	

Notes:

1) The overall project budget is $223,900. The pre-approval request of $20,000 is for consulting work only.
2) The overall project budget is $290,700. The pre-approval request of $40,000 is for consulting work only.
3) The overall project budget is $2,796,600. The pre-approval request of $1,598,200 is to ensure there is no gap in the supply of library materials in Q1, 2020.
4) The overall project budget is $2,190,800. The pre-approval request of $362,000 is for design work only.
5) The overall project budget is $607,200. The pre-approval request of $150,000 is for design work only.
6) The overall project budget is $2,685,300. The pre-approval request of $94,000 represents the contingency amounts required for all project pre-approval requests.

2020 PROJECT FUNDING REQUEST FORM

Number: 20001

Project Cost: $237,800

Project Name: **Markham Economic Strategy**

Commission: Development Services

Department: Economic Development

Project Mgr: Christina Kakaflikas

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: Pre Approval: ☐

Category: Major

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The City's 10-year Economic Strategy– Markham 2020 was first adopted by Council in 2008.
A performance review of Markham 2020 was subsequently conducted in 2016. Markham's strategy is now 10 years old and is in need of updating. The new economic strategy will address the following: clusters of comparative advantage & opportunity; priority investment targets & best means of investment attraction; business retention & after-care strategies & resourcing; entrepreneurship & new business formation; talent/labour force evaluation & development program; place-making/city-building evaluation as it relates to business and talent attraction; a 5 year marketing plan with tactics to strengthen strategic messaging to target audiences.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	35,000	0
Internal Charges:	85,200	0
External Consulting:	115,000	0
Sub Total:	235,200	0
HST Impact:	2,640	0
Total Project Cost:	**237,800**	**0**

NOTES

Cost validation based on staff experience and observation of similar projects and initiatives in Markham and benchmark competitive municipalities. The economic strategy is essential for accessing senior grovernment funding opportunities (eg. small business related grants) and will be a vehicle for engaging stakeholders and partners in charting a path towards strengthening and sustaining Markham's economic prosperity. A 9 month contract (Senior Business Development Coordinator) is required to manage this project.

SOURCE(S) OF FUNDING ($)		Components					Future
Funding Type	Budget	Consultants	Events & marketing	Video/info graphics	Staff	TOTAL	Phases
Non-DC Growth	237,800	116,900	15,300	20,400	85,200	237,800	0
TOTAL FUNDING	**237,800**					**237,800**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20002

Project Cost: $249,300

Project Name: **Culture Public Art Master Plan Implementation Phase 1 of 5**

Commission: Development Services

Department: Culture

Project Mgr: Stephen Chait

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

With the completion of the Public Art Master Plan in 2019 and approval by Council expected in Fall 2019, funding is now required to implement the plan. This will be a recurring expense for 5-years to meet the objectives of the Master Plan, funded by reserves. It will fund maintenance of existing public art, competitions and commissions for new projects, matching funds for opportunities as they arise, dissemination of and public engagement with Public Art.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	200,800	803,100
Internal Charges:	45,000	180,000
External Consulting:	0	0
Sub Total:	245,800	983,100
HST Impact:	3,534	14,135
Total Project Cost:	**249,300**	**997,200**

NOTES

To implement the 5-year, Council-approved Public Art Master Plan produced in 2019, $249,300 ($150,000 to commission art for Main St. Unionville streetscape, $35,000 for artwork repairs and maint., $19,300 for signage and promotion, $45,000 for the public art coordinator) is required annually for 5 years. Cost as recommended by the 5-year Public Art Plan.
Reserve Fund: Public Art Acquisition (current reserve balance: $2.35M)

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Commission art	Artwork repairs/ maint.	Signage/ promotion	Coordinator	TOTAL	Future Phases
Reserve Fund	204,300	150,000	35,000	19,300	0	204,300	817,200
Tax	45,000	0	0	0	45,000	45,000	180,000
TOTAL FUNDING	**249,300**					**249,300**	**997,200**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20003

Project Cost: $83,400

Project Name: **Museum - Strickler Barn Phase 2 of 2**

Commission: Development Services

Department: Museum

Project Mgr: Vicky Chan/Cathy Molloy

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Third party estimate

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Phase 2 of this project will renovate the barn space to allow for special events (weddings, parties, etc.) and an increase camp attendance spaces. Work includes structural repairs to the roof to allow for occupany under the Ontario Building Code rather than storage space only. The barn is currently not 'to code' for human occupancy.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	82,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	82,000	0
HST Impact:	1,443	0
Total Project Cost:	**83,400**	**0**

NOTES

Work includes; roof work, repair/replace walls, doors, staircase, new catering kitchen, mechanical, electrical, site works. Phase 1 has an approved budget of $119,800 for a total project cost of $203,200 ($119,800 + $83,400). Project payback is approximately 3 years. ($203,200/$66,000).

Life Cycle amount requested is consistent with 2019 Life Cycle reserve study update. Project completion will allow the additional programs to begin in 2021.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	83,400	0	0	0	0	0	0
TOTAL FUNDING	**83,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$66,000	-$66,000

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	83,400
Amount Incl HST	83,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20004

Project Cost: $332,100

Project Name: **Museum - Various Buildings**

Repair/Replace

Commission: Development Services

Useful Life: Pre Approval: ☐

Department: Museum

Project Mgr: Vicky Chan/Cathy Molloy

Category: Major

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Building maintenance for selected buildings on the museum site in order to keep them in a state of good repair.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	316,530	0
Internal Charges:	10,000	0
External Consulting:	0	0
Sub Total:	326,530	0
HST Impact:	5,571	0
Total Project Cost:	**332,100**	**0**

NOTES

$166,100 - Cider Mill (repair/replace walls, electrical, porch, fire system, millwork, doors)
$102,800 - Locust Hill Train Station (repair/replace walls, flooring, doors, millwork, painting, roof accessories)
$42,500 - Reception Centre (repair/replace walls, flooring, painting)
$20,700 - Pest control for entire site
Amount is consistent with 2019 Life Cycle reserve study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Cider Mill	Train Station	Reception Centre	Pest control	TOTAL	Future Phases
Operating Funded Life Cycle	332,100	166,100	102,800	42,500	20,700	332,100	0
TOTAL FUNDING	**332,100**					**332,100**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 332,100
Amount Incl HST 332,100
Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20005

Project Cost: $83,500

Project Name: **Museum Maintenance**

Repair/Replace

Commission: Development Services

Useful Life: Pre Approval: ☐

Department: Museum

Project Mgr: Cathy Molloy

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual general maintenance of various components within various structures to keep state of good repair.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	82,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	82,100	0
HST Impact:	1,445	0
Total Project Cost:	**83,500**	**0**

NOTES

$9,300-Baptist Church water heater (1990) and fixtures (2004). $11,100-Collections sidewalk (1990). $7,500-Harness Shop electrical (2005), counters (1865), painting (2005). $4,600-Mount Joy schoolhouse painting (2012). $1,500-Site 2-way radios (2012). $41,600-Transport painting (2008), humidifiers (1987), auto door operner (1990), water heater (2002). $6,500-Windmill inspection (2015) and repair (2010). Amount consistent with 2019 Life Cycle reserve study update

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	83,500	0	0	0	0	0	0
TOTAL FUNDING	**83,500**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	83,500
Amount Incl HST	83,500
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20006

Project Cost: $42,200

Project Name: **Theatre-Building Maintenance**

Repair/Replace

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Theatre

Project Mgr: Andrew Rosenfarb

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of damaged lobby drywall, 4 public washroom doors, balcony sound absorption panels and the re-facing of the café, bar, kitchen & costume room cabinetry.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	41,500	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	41,500	0
HST Impact:	730	0
Total Project Cost:	**42,200**	**0**

NOTES

$15,300- Sections of the lobby drywall are damaged/cracking requiring replacement (1985)
$10,500- Cabinet re-facing for bar, café, kitchen and costume room (2000)
$10,300- Balcony sound absorption panels replacement to match orchestra panels (2000)
$6,100- Replacement of 4 lobby washroom doors (2009)
Amount requested is consistent with the 2019 Life Cycle reserve study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Drywall	Cabinets	Doors/Sound Panels		TOTAL	Future Phases
Operating Funded Life Cycle	42,200	15,300	10,500	16,400	0	42,200	0
TOTAL FUNDING	**42,200**					**42,200**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,100,900
Amount Incl HST 42,200
Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2019 life cycle includes HVAC Quantity Survey ($10k), Theatrical Lighting Fixture Replacement ($195k), Building Maint. ($42k), Dressing Room Refurbishment ($291k), Courtyard Replacement ($224k), Parking Lot Swing Gates ($15k), Stage Equipment & Maint. ($20k). Amount available in 2020 life cycle is $1,101k. Amount requested is $797k. Difference is primarily due to the deferral of the auditorium interior painting & LED house light conversion ($251k) and other components based on assessment.

2020 PROJECT FUNDING REQUEST FORM

Number: 20007

Project Cost: $223,900

Project Name: **Theatre-Courtyard Replacement (Upper & Lower)**

Repair/Replace

Commission: Development Services

Useful Life: 25 Pre Approval: ☑

Department: Theatre

Project Mgr: Andrew Rosenfarb

Category: Major

Ward(s): CW ☑ 1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐ 8☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Remove interlock brick from the theatre's main entrance and 2 courtyards located in between the Theatre and Unionville High School and replace with concrete. Existing interlock was installed during theatre construction in 1985.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	200,000	0
Internal Charges:	0	0
External Consulting:	20,000	0
Sub Total:	220,000	0
HST Impact:	3,872	0
Total Project Cost:	**223,900**	**0**

NOTES

This project aims to make the courtyard areas on City owned property more usable & attractive for events and most importantly to fix issues such as unlevelled ground, water drainage issues, missing stones and open ground where trees have been removed. Work would take place in the summer months to have minimal impact on programs. Amount requested is consistent with the 2019 Life Cycle reserve study update. The pre-approval request of $20,000 is for consulting work only.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	223,900	0	0	0	0	0	0
TOTAL FUNDING	**223,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,100,900
Amount Incl HST	223,900
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2019 life cycle includes HVAC Quantity Survey ($10k), Theatrical Lighting Fixture Replacement ($195k), Building Maint. ($42k), Dressing Room Refurbishment ($291k), Courtyard Replacement ($224k), Parking Lot Swing Gates ($15k), Stage Equipment & Maint. ($20k). Amount available in 2020 life cycle is $1,101k. Amount requested is $797k. Difference is primarily due to the deferral of the auditorium interior painting & LED house light conversion ($251k) and other components based on assessment.

2020 PROJECT FUNDING REQUEST FORM

Number: 20008

Project Cost: $290,700

Project Name: **Theatre-Dressing Room Refurbishment**

Repair/Replace

Commission: Development Services

Useful Life: 10 Pre Approval: ☑

Department: Theatre

Project Mgr: Andrew Rosenfarb

Category: Major

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: External peer review

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Redesign & refurbishment of 6 dressing rooms including replacement of flooring, countertops, shower stalls, ceramic tiles, plumbing fixtures, toilets, partitions, mirrors, chairs, costume racks, painting and replacement of incandescent lighting with LED.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	245,700	0
Internal Charges:	0	0
External Consulting:	40,000	0
Sub Total:	285,700	0
HST Impact:	5,028	0
Total Project Cost:	**290,700**	**0**

NOTES

Last refurbished over 12 years ago, the venue's dressing rooms are showing their age and several components have visible damage. Dressing rooms are used by both our professional artists from around the world and members of our community. For some, these rooms are one of the only few impressions they get of the Theatre and City of Markham. The theatre is requesting to refurbish these spaces to better serve our clients and community. Amount consistent with the 2019 life cycle reserve study update. The pre-approval request of $40,000 is for consulting work only.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	290,700	0	0	0	0	0	0
TOTAL FUNDING	**290,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,100,900
Amount Incl HST	290,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2019 life cycle includes HVAC Quantity Survey ($10k), Theatrical Lighting Fixture Replacement ($195k), Building Maint. ($42k), Dressing Room Refurbishment ($291k), Courtyard Replacement ($224k), Parking Lot Swing Gates ($15k), Stage Equipment & Maint. ($20k). Amount available in 2020 life cycle is $1,101k. Amount requested is $797k. Difference is primarily due to the deferral of the auditorium interior painting & LED house light conversion ($251k) and other components based on assessment.

2020 PROJECT FUNDING REQUEST FORM

Number: 20010

Project Cost: $15,300

Project Name: **Theatre-Parking Lot Swing Gates**

New Asset/Expansion

Commission: Development Services

Useful Life: 10 Pre Approval: ☐

Department: Theatre

Project Mgr: Andrew Rosenfarb

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Parking swing gates at the 4 theatre parking lot entrances to effectively reserve parking for patrons during numerous events that conflict with Civic Centre and school operating times. With very limited parking spots dedicated to the theatre, it is essential for rental clients to have access to reserved parking.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	15,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	15,000	0
HST Impact:	264	0
Total Project Cost:	**15,300**	**0**

NOTES

The theatre produces numerous daytime events and shows where the theatre parking lot needs to be reserved for attending patrons and blocked off from City staff and high school students/parents. This project will allow the theatre to easily reserve the parking lot when needed. Existing parking gates were purchased in 2005. Amount requested is consistent with the 2019 Life Cycle reserve study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	15,300	0	0	0	0	0	0
TOTAL FUNDING	**15,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,100,900

Amount Incl HST 15,300

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2019 life cycle includes HVAC Quantity Survey ($10k), Theatrical Lighting Fixture Replacement ($195k), Building Maint. ($42k), Dressing Room Refurbishment ($291k), Courtyard Replacement ($224k), Parking Lot Swing Gates ($15k), Stage Equipment & Maint. ($20k). Amount available in 2020 life cycle is $1,101k. Amount requested is $797k. Difference is primarily due to the deferral of the auditorium interior painting & LED house light conversion ($251k) and other components based on assessment.

2020 PROJECT FUNDING REQUEST FORM

Number: 20011

Project Cost: $20,000

Project Name: **Theatre-Stage Equipment & Maintenance**

Repair/Replace

Commission: Development Services

Useful Life: Pre Approval: ☐

Department: Theatre

Project Mgr: Andrew Rosenfarb

Category: Annual

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 1 fogger used for theatrical fog effects, 12 lavalier microphone capsules, painting of stage walls, certified rigging safety inspection for motorized equipment above the stage, revoicing of concert grand piano and installation of humidifier in baby grand piano.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	19,700	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	19,700	0
HST Impact:	347	0
Total Project Cost:	**20,000**	**0**

NOTES

$5,200- Fogger (2013)
$3,000- Piano revoicing & humidifier (2015)
$2,500- Rigging safety inspections (annual)
$6,000- Lavalier microphone capsules (2011)
$3,000- Painting of stage walls (2005)
Amount requested is consistent with the 2019 Life Cycle reserve study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	20,000	0	0	0	0	0	0
TOTAL FUNDING	**20,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,100,900

Amount Incl HST 20,000

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2019 life cycle includes HVAC Quantity Survey ($10k), Theatrical Lighting Fixture Replacement ($195k), Building Maint. ($42k), Dressing Room Refurbishment ($291k), Courtyard Replacement ($224k), Parking Lot Swing Gates ($15k), Stage Equipment & Maint. ($20k). Amount available in 2020 life cycle is $1,101k. Amount requested is $797k. Difference is primarily due to the deferral of the auditorium interior painting & LED house light conversion ($251k) and other components based on assessment.

2020 PROJECT FUNDING REQUEST FORM

Number: 20012

Project Cost: $195,400

Project Name: **Theatre-Theatrical Lighting Fixture Replacement**

Repair/Replace

Commission: Development Services

Useful Life: 8 Pre Approval: ☐

Department: Theatre

Category: Minor

Project Mgr: Andrew Rosenfarb

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 59 conventional lighting fixtures and 10 intelligent lighting fixtures that are due for replacement.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	192,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	192,000	0
HST Impact:	3,379	0
Total Project Cost:	**195,400**	**0**

NOTES

$40,000- Replacement of 59 conventional lighting fixtures no longer supported by manufacturer where specialty bulbs have been discontinued and cannot be sourced elsewhere (2008)
$152,000- Replacement of 10 intelligent moving lights (computerized, brighter and programmable) due to ongoing maintenance issues, costly repairs from factory in California and technology advances in new fixtures available (2012).
Amount requested is consistent with the 2019 Life Cycle reserve study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Lighting fixtures	Components: Moving lights			TOTAL	Future Phases
Operating Funded Life Cycle	195,400	40,700	154,700	0	0	195,400	0
TOTAL FUNDING	**195,400**					**195,400**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,100,900

Amount Incl HST 195,400

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2019 life cycle includes HVAC Quantity Survey ($10k), Theatrical Lighting Fixture Replacement ($195k), Building Maint. ($42k), Dressing Room Refurbishment ($291k), Courtyard Replacement ($224k), Parking Lot Swing Gates ($15k), Stage Equipment & Maint. ($20k). Amount available in 2020 life cycle is $1,101k. Amount requested is $797k. Difference is primarily due to the deferral of the auditorium interior painting & LED house light conversion ($251k) and other components based on assessment.

2020 PROJECT FUNDING REQUEST FORM

Number: 20013

Project Cost: $41,700

Project Name: **Exhibition Galleries & Programs Maintenance**

Repair/Replace

Commission: Development Services

Useful Life: Pre Approval: ☐

Department: Arts Centres

Project Mgr: Niamh O'Laoghaire

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Maintenance work to ensure that the galleries can host important contemporary multimedia exhibitions reflective of the City's mandate and ethos as the high tech capital of Canada. Ensure Program furniture and equipment attracts continued registration in Varley programs.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	41,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	41,000	0
HST Impact:	722	0
Total Project Cost:	**41,700**	**0**

NOTES

$5,000- Moving electrical outlets & wiring to walls of the Main & Intro. Galleries (1997). $6,000- Replace activity rooms lighting with track lights (& bulbs) (2011). $15,000- 4 high-end projectors ($3,500 each) & 4 projector cages ($250 each) to support programs. $2,500- Replace 12 activity tables (2000). $2,500- 100 programs chairs (1996). $2,500- Table & chair caddies (1996). $1,000- Portable stools (1996). $1,000- Electrician. $6,000- Sound consultant & sound system (2007). Amount is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	41,700	0	0	0	0	0	0
TOTAL FUNDING	**41,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	183,000
Amount Incl HST	41,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Remaining components in Life Cycle are for HVAC and mechanical work which were inspected and deemed to be in good or fair condition.

2020 PROJECT FUNDING REQUEST FORM

Number: 20014

Project Cost: $15,000

Project Name: **McKay Accessibility Consultant**

Studies/Pilot Programs

Commission: Development Services

Useful Life: 20 Pre Approval: ☐

Department: Arts Centres

Category: Minor

Project Mgr: Niamh O'Laoghaire

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Commission a report on the McKay House to understand how best to improve accessibility both inside and outside an 1850s heritage house to make more accessible and expand programming opportunities.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	14,700	0
Sub Total:	14,700	0
HST Impact:	259	0
Total Project Cost:	**15,000**	**0**

NOTES

The McKay Art Centre is only accessible on its ground floor. The basement, site of many activities is not accessible, nor is the second floor. One part of the garden (used for the Jazz Festival, rentals, etc.) is only accessible on its lowest level, which precludes access to the accessibility washroom. We require a certified Accessibility for Ontarians with Disability Act (AODA) consultant to examine the building and grounds in detail and report on accessibility options: $15,000. Future phases of the project will be determined based on the findings of the consultant.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	15,000	0	0	0	0	0	0
TOTAL FUNDING	**15,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	262,400
Amount Incl HST	15,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Remaining components in Life Cycle are for interior and exterior mechanical work which were inspected and deemed to be in good condition and not require replacing in 2020.

2020 PROJECT FUNDING REQUEST FORM

Number: 20015

Project Cost: $521,200

Project Name: **Consolidated Zoning By-law - LPAT Defense and Refinement**

Studies/Pilot Programs

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Planning

Category: Major

Project Mgr: Brad Roberts

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Defense of the New Consolidation Zoning By-law (Multi Year Project 2014-2019) at the Local Planning Appeal Tribunal (LPAT), and any housekeeping amendments required as a result of LPAT decisions. New Consolidated Zoning By-law is being developed to comply with Official Plan.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	165,000	165,000
External Consulting:	350,000	350,000
Sub Total:	515,000	515,000
HST Impact:	6,160	6,160
Total Project Cost:	**521,200**	**521,200**

NOTES

Defense of the approved new Comprehensive Zoning By-law at LPAT. New By-law anticipated to be adopted by City Council by the end of 2019. Appeal Period to begin in 2020 and may go into 2021 to resolve. As well, staff resources will be required to implement any required refinements to the by-law, Official Plan and any licensing or other by-laws, as a result of adoption. External consulting is 700 hrs. of legal services at $500/hour (based on Legal Dept. estimate). Internal charges are for staff dedicated to the defense.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Building Fees	416,960	0	0	0	0	0	416,960
Development Fees	104,240	0	0	0	0	0	104,240
TOTAL FUNDING	**521,200**					**0**	**521,200**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Consolidated Zoning By-law (Phase 4) – LPAT Defense and Refinement

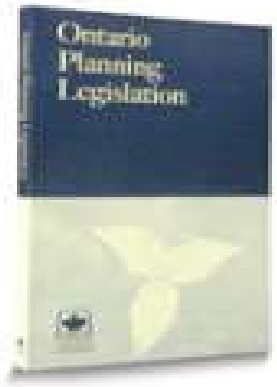
2020 Budget Request: $521,200

Preparation for Phase 4

- Consolidation of 42 by-laws into one consistent by-law will alter the property rights for many land owners
- Staff are working to develop a by-law that implements the City's Official Plan, while respecting existing property rights
- While it is the goal of Staff to limit their number, it is unlikely that a By-law project of this scale will avoid appeals entirely.

Why does Markham need to undertake comprehensive review of existing zoning framework?

New Markham Official Plan – approved by the Region June 2014



S. 26 (9) - municipalities required to review & update zoning by-law(s) to conform with new OP no later than 3 years after new OP comes into effect

Project Phases

- The Comprehensive Zoning By-law project, initiated in late 2013, is a phased, multi-year project, divided into the following phases:

- Phase 1: Zoning Issues Analysis (completed March 2016)
- Phase 2: Strategic Direction (completed June 2016)
- Phase 3:
  - A: Review of potential Official Plan, zoning and licensing regulations for rooming houses, second suites and short-term rental accommodations (completed May 2018)
  - B: Drafting of New Comprehensive Zoning By-law (ongoing)
- **Phase 4: Potential LPAT Appeals**

2020 PROJECT FUNDING REQUEST FORM

Number: 20016

Project Cost: $92,000

Project Name: **Consultant Studies**

Studies/Pilot Programs

Commission: Development Services

Department: Planning

Project Mgr: Biju Karumanchery

Useful Life: Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This recurring account allows staff to respond to growth related strategic opportunities and unplanned needs that arise throughout the year where specialized consultant services are needed.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	92,000	0
Sub Total:	92,000	0
HST Impact:	0	0
Total Project Cost:	**92,000**	**0**

NOTES

This account is intended to allow staff to respond to unanticipated needs and strategic opportunities. The projected 3-year average spend (2017-2019) is $92k. The 2019 request (Project 19014) was $97,000.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	82,800	0	0	0	0	0	0
Development Fees	9,200	0	0	0	0	0	0
TOTAL FUNDING	**92,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
General Government - Various Studies	2020	82,800	1,593,063
TOTAL FUNDING		82,800	1,593,063

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20017

Project Cost: $30,000

Project Name: **Designated Heritage Property Grant Program**

Studies/Pilot Programs

Commission: Development Services

Useful Life: Pre Approval: ☐

Department: Planning

Category: Major

Project Mgr: Regan Hutcheson

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Continuation of program- Council would have to approve an extension of the program for 2020 and onwards Grant assistance (50/50) to a maximum of $5,000/property for restoration work on designated properties.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	30,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	30,000	0
HST Impact:	0	0
Total Project Cost:	**30,000**	**0**

NOTES

Program was initiated in 2010 for four years (2010-2013) at $30,000 per year. It was renewed for another three years (2014-2016) and for an additional three years (2017-2019) all at $30,000 per year. A report and by-law will be brought forward by the end of 2019 to continue the program at $30K/yr for an additional 3 yrs (2020-2022). Project classified as major due to 2 year timeline granted to property owners.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Heritage Reserve	30,000	0	0	0	0	0	0
TOTAL FUNDING	**30,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20018

Project Cost: $20,000

Project Name: **Heritage Façade Improvements/Sign Replacement**

Studies/Pilot Programs

Commission: Development Services

Useful Life: Pre Approval: ☐

Department: Planning

Category: Major

Project Mgr: Regan Hutcheson

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual grants to commercial property owners in heritage areas to make improvements to facades. Matching grant of up to $10,000 for non-heritage and up to $15,000 for heritage buildings. Approval will allow City to continue with the program, as approved by Council.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	20,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	20,000	0
HST Impact:	0	0
Total Project Cost:	**20,000**	**0**

NOTES

Requirements are based on the typical number of applications received over the past 3 years. Original allocation was $50,000, then reduced to $30,000 in recent years and to $15,000 for 2019 to reflect demand. However in 2019 Council approved $19,000 of grants. It is recommended that for 2020, the amount be $20,000 based on 3 yr. average (2017-2019).

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Tax	20,000	0	0	0	0	0	0
TOTAL FUNDING	**20,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20019

Project Cost: $20,000

Project Name: **Housing Summit**

Commission: Development Services

Department: Planning

Project Mgr: Marg Wouters

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Funding required to host an Affordable and Rental Housing Summit in early 2020. The goal will be to bring together different levels of government, the development industry, non-profit housing providers and support groups, and members of the community to develop potential solutions and partnerships to address Markham's affordable and rental housing needs.
With a focus on strategic actions for increasing the supply of affordable and rental housing, the summit will feature dynamic speaker presentations on best housing practices and a workshop to collaborate on building solutions to Markham's housing crisis.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	10,000	0
Internal Charges:	0	0
External Consulting:	10,000	0
Sub Total:	20,000	0
HST Impact:	0	0
Total Project Cost:	**20,000**	**0**

NOTES

It is anticipated that event attendance would be in the range of 150-200 persons maximum. The budget request of $20,000 is required to book a venue and guest speakers, and retain a consultant to host and facilitate the workshop, develop info worksheets for evaluating solutions, and provide a summary report and presentation back to Markham Council in the Spring of 2020.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Promotion, venues	Components: Consultants			TOTAL	Future Phases
DCA	18,000	9,000	9,000	0	0	18,000	0
Development Fees	2,000	1,000	1,000	0	0	2,000	0
TOTAL FUNDING	**20,000**					**20,000**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
General Government - Various Studies	2020	18,000	1,593,063
TOTAL FUNDING		18,000	1,593,063

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20020

Project Cost: $20,400

Project Name: **Ontario Heritage Conference Host May 2020**

Commission: Development Services

Department: Planning

Project Mgr: Regan Hutcheson, Stephen Chait

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

In 2018, Markham bid and won the 2020 Ontario Heritage Conference. Dates are May 28, 29, 30, 2020. Markham provides venues and programming and the Markham Local Organizing Committee operates the conference. 250 delegates are expected. Costs of the event are off-set by registration fees and sponsorship. This project is for additional media, advertising, marketing and lunch session.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	20,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	20,000	0
HST Impact:	352	0
Total Project Cost:	**20,400**	**0**

NOTES

Markham is currently planning the conference and may wish to sponsor a lunch session; require funding for media/advertising/marketing; key note speaker fees.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Tax	20,400	0	0	0	0	0	0
TOTAL FUNDING	**20,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20021

Project Cost: $669,300

Project Name: **Planning & Design Staff Salary Recovery**

Commission: Development Services

Department: Planning

Project Mgr: Biju Karumanchery

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The purpose is to recover salaries of Planning and Urban Design Staff which relate to growth related works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	669,300	0
External Consulting:	0	0
Sub Total:	669,300	0
HST Impact:	0	0
Total Project Cost:	**669,300**	**0**

NOTES

A significant amount of time is spent by planners (both development and policy staff) and urban designers on growth related hard infrastructure such as roads, storm water ponds, bridges etc. during the subdivision and secondary plan process and in one-off construction projects such as bridge construction and street re-construction. This project is to recover salaries of existing staff that assist in the delivery of growth related hard infrastructure.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	669,300	0	0	0	0	0	0
TOTAL FUNDING	**669,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - City Wide - Studies		669,300	669,300
TOTAL FUNDING		669,300	669,300

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

DC funding is included under the hard services studies of the Development Charges Background Study.

2020 PROJECT FUNDING REQUEST FORM

Number: 20022

Project Cost: $39,000

Project Name: **York Region Employment Survey**

Commission: Development Services

Department: Planning

Project Mgr: Senior Manager, Policy & Research

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To fund Planning and Urban Design's share of Markham's funding obligation for the York Region Employment Survey. The Survey results are used to assist in monitoring growth and trends in employment in Markham and York Region. The employment data is shared with Economic Development.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	39,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	39,000	0
HST Impact:	0	0
Total Project Cost:	**39,000**	**0**

NOTES

The York Region Employment Survey is an annual program. Markham has entered into an agreement with York Region to share the costs of conducting the survey. The total Regional cost in 2019 was $322,819 and Markham's commitment to the survey was $38,000 or 11.7%. As a cost estimate for 2020 has not yet been provided, staff are assuming the 2019 cost plus 2% for 2020.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	35,100	0	0	0	0	0	0
Development Fees	3,900	0	0	0	0	0	0
TOTAL FUNDING	**39,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
General Government - Various Studies	2020	35,100	1,593,063
TOTAL FUNDING		35,100	1,593,063

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20024

Project Cost: $8,875,400

Project Name: **Box Grove Community Park - Construction**

New Asset/Expansion

Commission: Development Services

Useful Life: 25 Pre Approval: ☐

Department: Design

Category: Major

Project Mgr: Richard Fournier

Cost Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☑ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To hire the contractors to build the 23.5 acre /9.5 ha Box Grove Community Park. Program includes soccer field; tennis and pickle ball courts; basketball court; mini skate zone; junior & senior play and water play; dog park, combined maintenance/ washroom/pavilion building and associated landscape works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	7,962,300	0
Internal Charges:	773,000	0
External Consulting:	0	0
Sub Total:	8,735,300	0
HST Impact:	140,136	0
Total Project Cost:	**8,875,400**	**0**

NOTES

This amount is additional funding requested to construct the remainder of the park, plus a combined washroom/pavilion/maintenance building. Funds from Phase 1 construction, Project 16038, of $2,472,800, to be added to this project. Pedestrian bridge construction under separate funding request, Project 18031, for $1,058,200.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	7,987,860	0	0	0	0	0	0
Parks Cash-in-Lieu	887,540	0	0	0	0	0	0
TOTAL FUNDING	**8,875,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Parks - Box Grove Community Park	2020	7,987,860	7,987,860
TOTAL FUNDING		7,987,860	7,987,860

Life Cycle

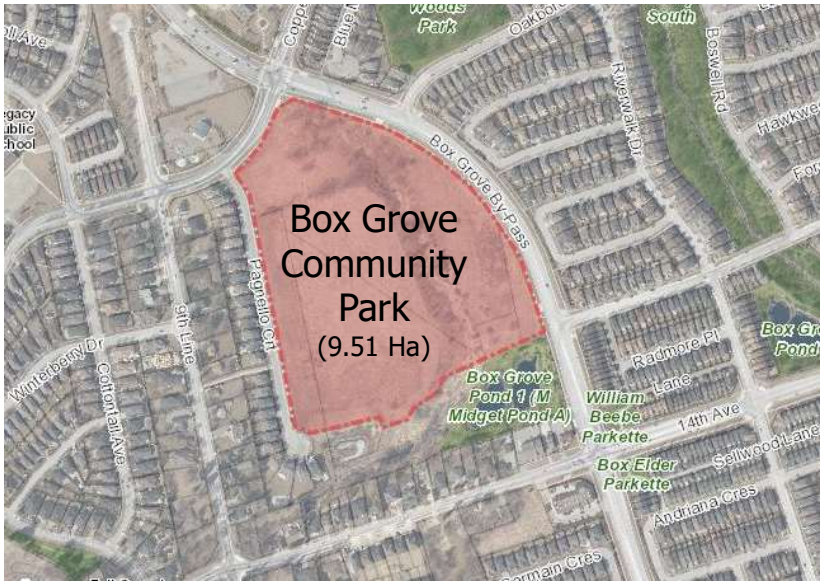
Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Box Grove Community Park - Construction



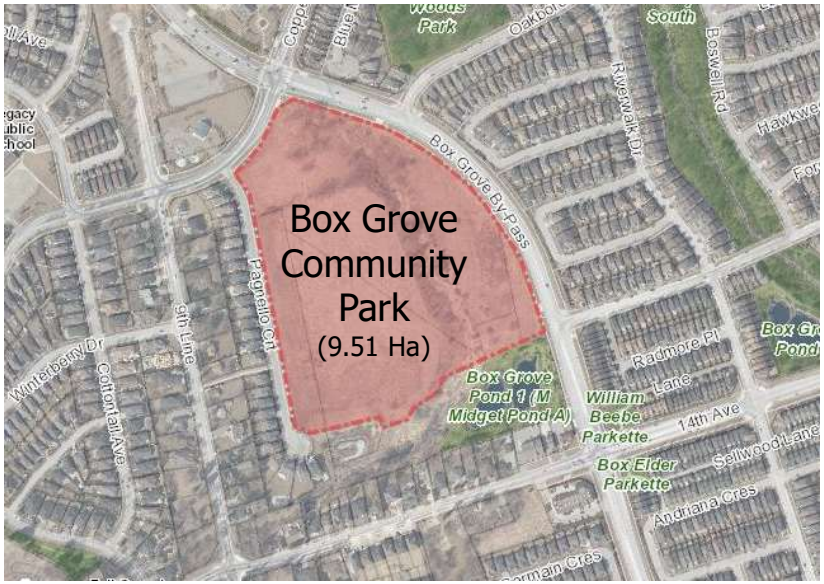
2020 Budget Request: $8,875,400

- Ward 7
- Features:
  - Jr/Sr playground
  - Adult fitness
  - Splash pad
  - Basketball
  - Skate zone
  - Junior soccer
  - Off leash dog area
  - Tennis courts (2)
  - Pickle ball (4)
  - Washroom & maintenance building with pavilion
  - Pedestrian bridge
  - Parking lot
  - Shade structure and furnishings

BUILDING MARKHAM'S FUTURE TOGETHER 2015-2019 Strategic Plan

MARKHAM

Box Grove Community Park - Construction



Total Project Cost

16038 – Box Grove Comm. Park East – Ph1 Con.	$ 2,472,800
18031 - Box Grove Community Park Bridge-Construction	$ 1,058,200
Total Approved	**$ 3,531,000**
PLUS 2020 Budget Request (Ph2 Con & Building)	**$ 8,875,400**
TOTAL	**$ 12,406,400**

* 2020 Budget Request is for phase 2 park construction and maintenance/ washroom/ pavilion building

- All phases to be constructed together (no phasing) starting in 2020
- Estimated in service date: Q3 2021

2020 PROJECT FUNDING REQUEST FORM

Number: 20025

Project Cost: $9,329,100

Project Name: **Cornell Community Park - Construction**

New Asset/Expansion

Commission: Development Services

Department: Design

Project Mgr: Richard Fournier

Useful Life: 25 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To hire a contractor to build the 33.78 ac/13.26 ha Cornell Community Park. Park program consists of ball diamonds; soccer fields; junior, senior and water play; tennis courts; pickle ball courts, basketball court, skate zone, and parking.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	8,369,300	0
Internal Charges:	812,500	0
External Consulting:	0	0
Sub Total:	9,181,800	0
HST Impact:	147,300	0
Total Project Cost:	**9,329,100**	**0**

NOTES

Additional funds required in 2020 for construction of park. Earlier funds allocated as Project: 17017 for construction of Phase 1 to be added to this budget funding request.
Maintence/Washroom/Pavlion building under separate accounts.
Lifecycle cost is 12,620,523.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	8,396,190	0	0	0	0	0	
Parks Cash-in-Lieu	932,910	0	0	0	0	0	0
TOTAL FUNDING	**9,329,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
Parks - Cornell Community Park	2020	8,396,190	8,396,190
TOTAL FUNDING		8,396,190	8,396,190

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Cornell Community Park - Construction

2020 Budget Request: $9,329,100

- Ward 5
- Features:
  - Jr/Sr playground
  - Splash pad
  - Basketball
  - Skate zone
  - Senior soccer Lit
  - Junior soccer 9v9
  - Senior ball diamonds Lit (2)
  - Tennis courts (2)
  - Pickle ball (8)
  - Washroom & maintenance building with pavilion
  - Parking lots
  - Shade structures and furnishings

Cornell Community Park - Construction

Total Project Cost

17017 - Cornell Comm. Park – Ph1 of 3 - Construction	$ 3,000,000
19027 - Cornell Park Maint. Building Const.	$ 1,107,600
18030 - Cornell Park Pavilion and Washrooms Construction	$ 925,300
Total Approved	**$ 5,032,900**
PLUS 2020 Budget Request	**$ 9,329,100**
TOTAL	**$ 14,362,000**

* 2020 Budget Request is for phase 2 park construction

- All phases to be constructed together (no phasing) starting in 2020
- Estimated In service date: Q3 2021

2020 PROJECT FUNDING REQUEST FORM

Number: 20026

Project Cost: $553,800

Project Name: **Cornell Parkette - Design & Construction**

New Asset/Expansion

Commission: Development Services

Useful Life: 25 Pre Approval: ☐

Department: Design

Project Mgr: Richard Fournier

Category: Major

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to design and construct the 0.90 acre (0.36 ha) parkette in lacoated at the SE corner of 9th Line and Hwy 7. Park amenities will include pathways and associated landscape works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	450,000	0
Internal Charges:	45,000	0
External Consulting:	50,000	0
Sub Total:	545,000	0
HST Impact:	8,800	0
Total Project Cost:	**553,800**	**0**

NOTES

Life cycle cost is $443,040 ($553,800 x 80%) over 25 years. Cost per ha is $1,384,500 ($553,800/0.40) or $553,800 per acre. Annualized operating cost is $3,576 (0.40 ha x $8,941/ha) startining in 2022. Estimated in-service date: November 2021.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	498,420	0	0	0	0	0	0
Parks Cash-in-Lieu	55,380	0	0	0	0	0	0
TOTAL FUNDING	**553,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Parks - Cornell Parkette - 9th Line & HWY 7	2020	498,420	498,420
TOTAL FUNDING		498,420	498,420

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Cornell Parkette – Design & Construction

2020 Budget Request: $553,800

- Ward 5
- Features:
  - Pathways
  - Site furnishings

- Estimated in service date: Q4 2021

2020 PROJECT FUNDING REQUEST FORM

Number: 20027

Project Cost: $664,600

Project Name: **Leitchcroft Building - Construction**

New Asset/Expansion

Commission: Development Services

Useful Life: 25 Pre Approval: ☐

Department: Design

Category: Minor

Project Mgr: Richard Fournier

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to construct a maintenance building in Leitchcroft Park.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	600,000	0
Internal Charges:	54,000	0
External Consulting:	0	0
Sub Total:	654,000	0
HST Impact:	10,560	0
Total Project Cost:	**664,600**	**0**

NOTES

Life Cycle cost is $531,680 ($664,600 x 80%) over 25 years or more. Annualized operating cost is $7,560 starting in 2021.
Estimated in service date: July 2021

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	598,140	0	0	0	0	0	0
Parks Cash-in-Lieu	66,460	0	0	0	0	0	0
TOTAL FUNDING	**664,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Parks - Leitchcroft Community Park Standalone Washroom	2020	598,140	598,140
TOTAL FUNDING		598,140	598,140

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Leitchcroft Building - Construction

2020 Budget Request: $664,600

- Ward 8
- Features
  - Washroom with maintenance building

* New washroom and maintenance building to be constructed in recently completed Saddlecreek Park

- Estimated in service date: Q3 2021

2020 PROJECT FUNDING REQUEST FORM

Number: 20028

Project Cost: $836,800

Project Name: **Leitchcroft Townhouse Park - Design & Construction**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Design

Project Mgr: Richard Fournier

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to Design and Construct the 1.15 acre (0.46 ha) park. Anticipated amenities include junior /senior playground, shade structure and associated landscape works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	750,000	0
Internal Charges:	73,575	0
External Consulting:	0	0
Sub Total:	823,575	0
HST Impact:	13,200	0
Total Project Cost:	**836,800**	**0**

NOTES

Life cycle cost is $531,680 ($664,600 x 80%) over 25 years. Cost per ha is $1,444,782 ($664,600/0.46 ha) or $577,913 per acre. Annualized operating cost is $4,112 (0.46 ha x $8941/ha) starting in 2021. Estimated in-service date: Q4 2020.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	753,120	0	0	0	0	0	0
Parks Cash-in-Lieu	83,680	0	0	0	0	0	0
TOTAL FUNDING	**836,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
Parks - Leitchcroft Community Park Phase 2	2020	753,120	753,120
TOTAL FUNDING		753,120	753,120

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

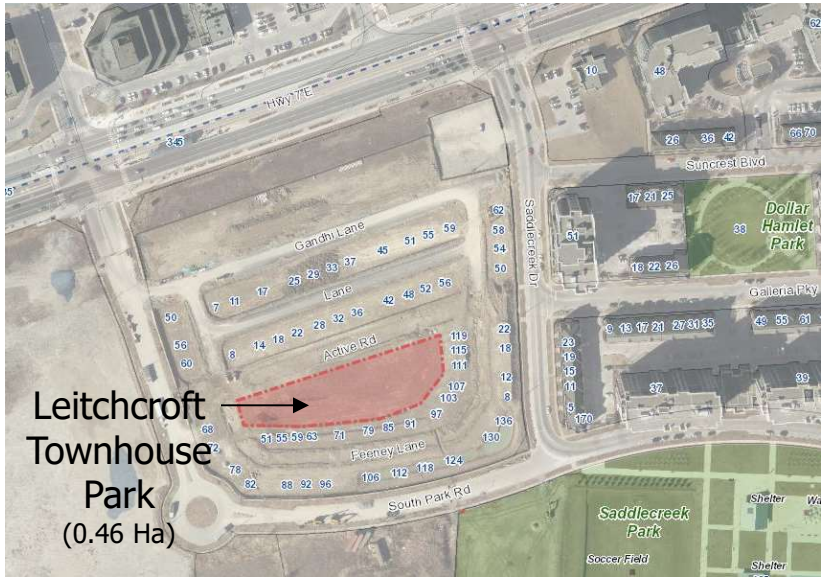
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

- Developer Upfront

BUILDING MARKHAM'S FUTURE TOGETHER 2015-2019 Strategic Plan

MARKHAM

Leitchcroft Townhouse Park – Design & Construction



2020 Budget Request: $836,800

- Ward 8
- Features:
  - Jr playground
  - Passive open space
  - Shade structure

* Potential Developer Up-fronted Park

* Estimated in service date: Q4 2020

2020 PROJECT FUNDING REQUEST FORM

Number: 20029

Project Cost: $1,269,200

Project Name: **Wismer McCowan Woodlot Park - Design & Construction**

New Asset/Expansion

Commission: Development Services

Useful Life: 25 Pre Approval: ☐

Department: Design

Category: Major

Project Mgr: Richard Fournier

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to design and construct the 2.98 acre (1.20 ha) park at 9431 McCowan Rd. Anticipated park amenities include Senior playground, tennis courts, shade structures, pathways, and associated landscape works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	1,100,000	0
Internal Charges:	99,000	0
External Consulting:	50,000	0
Sub Total:	1,249,000	0
HST Impact:	20,240	0
Total Project Cost:	**1,269,200**	**0**

NOTES

Lifecycle Cost is $1,015,392 ($1,269,200 x 80%) over 25 years. Cost per ha is $1,057,666 ($1,269,200/1.20 ha) or $425,906 per acre. Annualized operating cost is $10,729 (1.20 ha x $8941/ha) starting in 2022. Estimated in-service date: October 2021.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	1,142,280	0	0	0	0	0	0
Parks Cash-in-Lieu	126,920	0	0	0	0	0	0
TOTAL FUNDING	**1,269,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Parks - Wismer McCowan Woodlot Park	2020	1,142,280	1,142,280
TOTAL FUNDING		1,142,280	1,142,280

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

BUILDING MARKHAM'S FUTURE TOGETHER 2015-2019 Strategic Plan

MARKHAM

Wismer McCowan Woodlot Park – Design & Construction

2020 Budget Request: $1,269,200

- Ward 4
- Features:
  - Sr playground
  - Adult fitness
  - Tennis (2)
  - Shade structure

* Scope revised to include tennis courts in response to ILMP need in the area

- Approved project request *17016 - Wismer McCowan Woodlot Park - Design and Construction* for $485,000 to be closed in late 2019 upon completion of revised design package, remaining balance to be returned to source.

- Estimated in service date: Q4 2021

2020 PROJECT FUNDING REQUEST FORM

Number: 20030

Project Cost: $791,900

Project Name: **York Downs Park - Design & Construction**

New Asset/Expansion

Commission: Development Services

Useful Life: 25 Pre Approval: ☐

Department: Design

Project Mgr: Richard Fournier

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☑ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to design and construct the 0.92 acre (0.37 ha) park located between Island Green Lane and New Yorkton Ave. Anticipated park amenities include a playground, shade structure, site furnishings, pathways and associated landscape works.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	650,000	0
Internal Charges:	64,350	0
External Consulting:	65,000	0
Sub Total:	779,350	0
HST Impact:	12,584	0
Total Project Cost:	**791,900**	**0**

NOTES

Life cycle cost is $633,520 ($533,800 x 80%) over 25 years. Cost per ha is $2,140,270 ($791,900/0.37 ha) or $860,760 per acre. Annualized operating cost is $3,308 (0.37 ha x $8941/ ha) starting in 2021. Estimated in-service date: Q2 2021.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components				TOTAL	Future Phases
DCA	712,710	0	0	0	0	0	0
Parks Cash-in-Lieu	79,190	0	0	0	0	0	0
TOTAL FUNDING	**791,900**					**0**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
Parks - York Downs Parkette Kennedy	2020	712,710	712,710
TOTAL FUNDING		712,710	712,710

Life Cycle

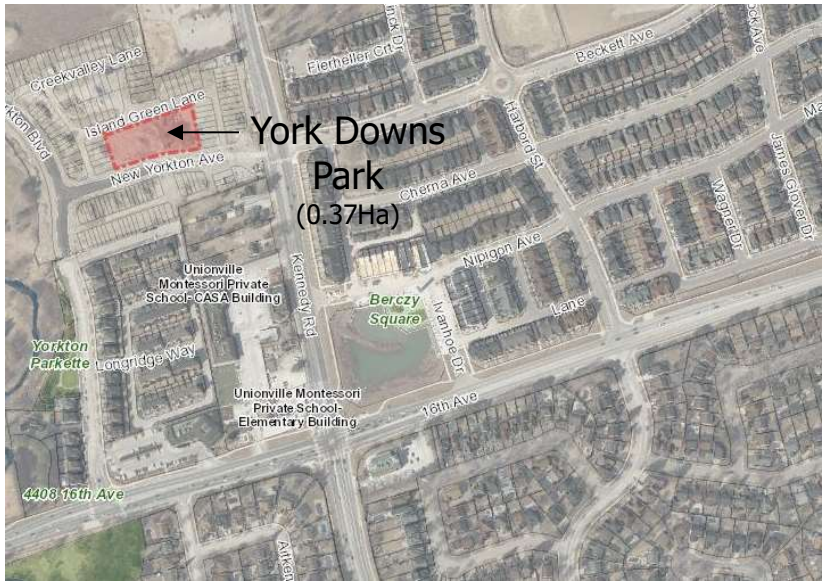
Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

York Downs Park – Design & Construction



2020 Budget Request: $791,900

- Ward 6
- Features:
  - Jr/Sr playground
  - Shade structure

* Potential Developer Up-fronted Park

- Estimated in service date: Q2 2021

2020 PROJECT FUNDING REQUEST FORM

Number: 20031

Project Cost: $429,600

Project Name: **404 North District Water Supply (PD7) - EA**

New Asset/Expansion

Commission: Development Services

Department: Engineering

Project Mgr: Marija Ilic

Useful Life: 90 Pre Approval: ☐

Category: Major

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☐ 2 ☑ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is for the Class Environmental Assessment (EA) of a watermain between Richmond Hill and Markham to provide a second watermain and system security for Pressure District 7 (PD7). This will connect the Richmond Hill PD 7 water network to Markham water network. This watermain will be constructed under Hwy 404 and will be connected to the watermain on Mobis Drive in Markham.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	5,412,000
Internal Charges:	48,000	432,720
External Consulting:	375,000	324,720
Sub Total:	423,000	6,169,440
HST Impact:	6,600	100,966
Total Project Cost:	**429,600**	**6,270,400**

NOTES

Currently, the PD7 in Markham (generally north of Elgin Mills Road) has only one watermain on Elgin Mills Road from Richmond Hill. As more development occurs in the 404 Employment Block and North District, the one water supply does not provide the redundancy and the system security. Prior to the Region constructing a permanent second feed from Whitchurch-Stouffville many years in the future, an early connection from Richmond Hill will provide the needed system security.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	429,600	0	0	0	0	0	6,270,400
TOTAL FUNDING	**429,600**					**0**	**6,270,400**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

This work was not anticipated at this stage during the last DCBS update and was, therefore, not included. It will be included in the next update.

404 North Watermain - PD 7

Watermain supply loop for PD 7

2020 PROJECT FUNDING REQUEST FORM

Number: 20032

Project Cost: $86,500

Project Name: **Active Transportation Awareness Program**

Commission: Development Services

Department: Engineering

Project Mgr: Fion Ho

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The Active Transportation Awareness Program is to support, promote and encourage active transportation in Markham. This includes annual and on-going work, such as projects identified by the Cycling & Pedestrian Advisory Committee (CPAC), walking and cycling gaps, pavement marking and signage improvements, events and outreach and more. Potential pilots and initiatives related to active transportation would also be included under the Active Transportation Awareness Program.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	85,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	85,000	0
HST Impact:	1,496	0
Total Project Cost:	**86,500**	**0**

NOTES

Budget items such as:
- CPAC Budget: ($25,000)
- MUP Planning: ($10,000)
- Corridor signage & Payment marking improvements ($25,000)
-Feasibility Studies for active transportation initiatives ($10,000)
Encouragement/promotional & pilots ($15,000)
The project amount is consistent with the prior year's request (Project 19030). The expenditure in 2018 was $80,675 and 2019 (to date) is $2,085.

SOURCE(S) OF FUNDING ($)		Components				
Funding Type	Budget	CPAC	Ongoing		TOTAL	Future Phases
DCA	56,225	16,510	39,715	0	56,225	0
Non-DC Growth	30,275	8,890	21,385	0	30,275	0
TOTAL FUNDING	**86,500**				**86,500**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
Hard - Special Projects - City Wide - Travel Demand Management		56,225	3,331,694
TOTAL FUNDING		56,225	3,331,694

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Active Transportation Awareness budget breakdown spent in the past few years:

2016

- MUP Path Signage & Pavement Marking Project (Prepared MUP Signage Plans for MM, DCP, Markham Road, Warden)
- BikeShare Study Terms of Reference
- John St. Feasibility Study
- CPAC (Bike Valet Service, Markham Cycling Day, Jane's Walk, Bike Racks for event parking)
- Trail Connection Feasibility Study 2019 (25%)

2017

- Signage & Pavement Marking Guidelines for On-Road Cycling Facilities 2018 (IBI)
- Edgeline Implementation (50km)
- Intersection Treatment at Unionville Main St & Enterprise Blvd
- CPAC (Markham Cycling Day, Cycling Map Update, Bike Repair & donation)
- ATMP Communications Plan
- Active Transportation Expo

2018

- Trail Connection Feasibility Study 2019 (75%)
- SideWalk Completion Program Communications Plan
- CPAC (Markham Cycling Day, Jane's Walk)
- Active Transportation Expo
- Active Transportation School Pilot Phase 1

2019

- CPAC (Markham Cycling Day, Cycling Map Update, Jane's Walk, AT School Pilot Phase 2)
- Proposed: Road Diet Designs (3 road sections)
- Proposed: Bike Share Implementation Operating Plan
- Proposed: Road Safety Communications/Video

2020 (all proposed)

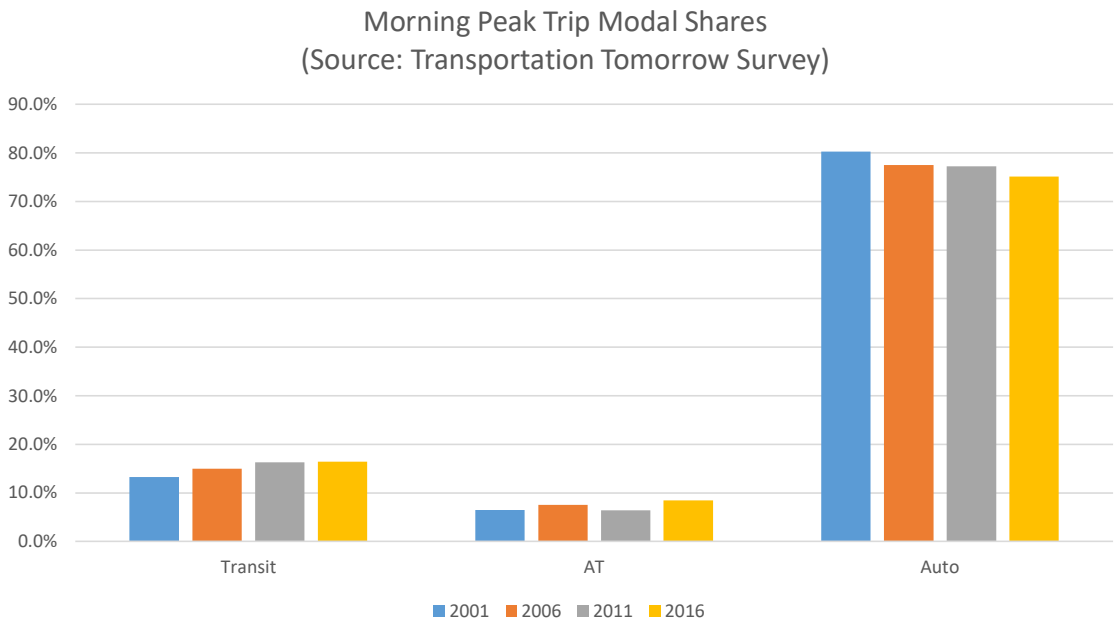
- Wayfinding Signage Guideline
- Trail Connection Feasibility Study: Design for one connection
- Denison St. MUP – update feasibility Study

Non-Auto Travel Demand Trends in Markham

Transportation Tomorrow Survey

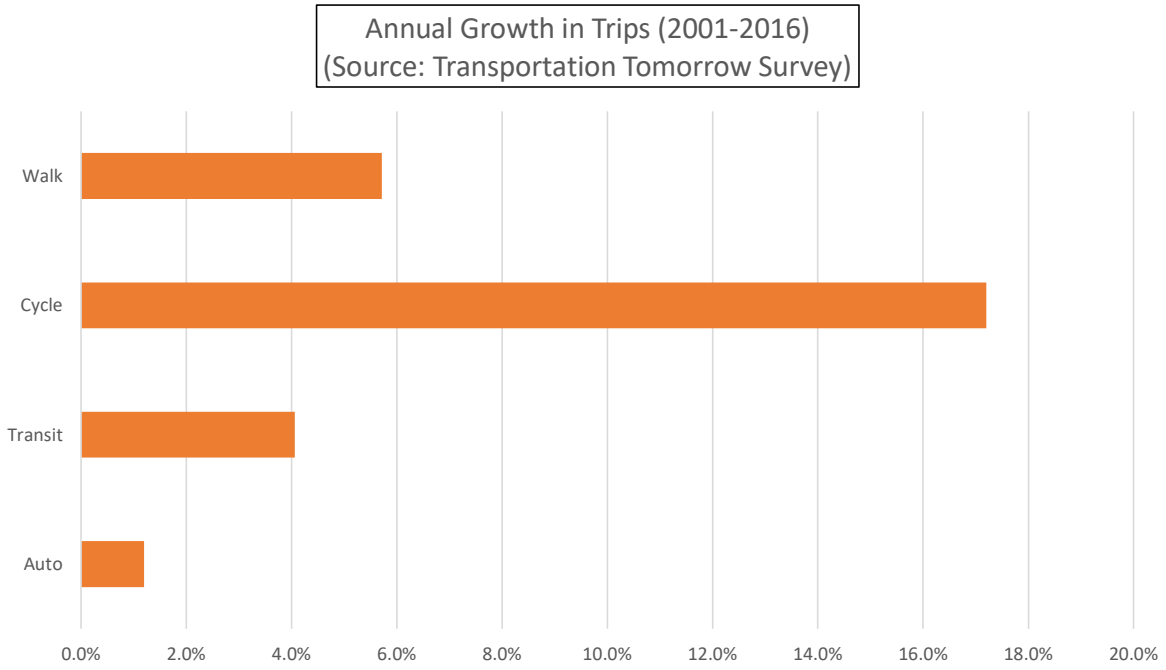
Non-Auto Travel Modal Shares Trending Up

- Since 2001, transit and AT mode shares are trending up while auto mode shares are trending down



Non-Auto Trips Growing Rapidly

- Since 2001, transit, walking and cycling trips growing annually at 4, 5 and 10 times car trips



2020 PROJECT FUNDING REQUEST FORM

Number: 20033

Project Cost: $514,900

Project Name: **Denison Street Extension Environmental Assessment**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Alain Cachola

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☑ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

In January 2014, Council endorsed recommendations to proceed with an Environmental Assessment to conduct a more detailed evaluation of a potential extension of Denison Street to Ninth Line. Significant environmental and property impacts are associated with the proposed extension, including crossing of the Rouge River; Hydro corridor and rail corridors. Technical issues such as the need for a rail grade separation (CP Rail or CN Rail), crossing of the Rouge River and proximity to the Hydro Corridor will need to be further reviewed. Significant costs associated with property acquisition, impacts to business operation and maintenance are anticipated.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	14,211,259
Internal Charges:	57,000	1,230,938
External Consulting:	450,000	895,140
Sub Total:	507,000	16,337,337
HST Impact:	7,920	265,873
Total Project Cost:	**514,900**	**16,603,200**

NOTES

The Markham Transportation Strategic Plan (MTSP) identified the need for a potential extension of Denison Street to address existing network connectivity and congestion issues in Box Grove. In 2013, a consultant was retained to review the feasibility of extending Denison Street to connect to either Ninth Line or Steeles Avenue taking into consideration constraints within the study area, as well as recommendations in the York Region's Transportation Improvements - Donald Cousens Parkway to Morningside Avenue Link Individual Environmental Assessment (EA) Study.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	514,900	0	0	0	0	0	16,603,200
TOTAL FUNDING	**514,900**					**0**	**16,603,200**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
Hard - Structures - Denison Street Extension Structure over CN -	2020	514,900	514,900
TOTAL FUNDING		514,900	514,900

Life Cycle

Amount in Study:

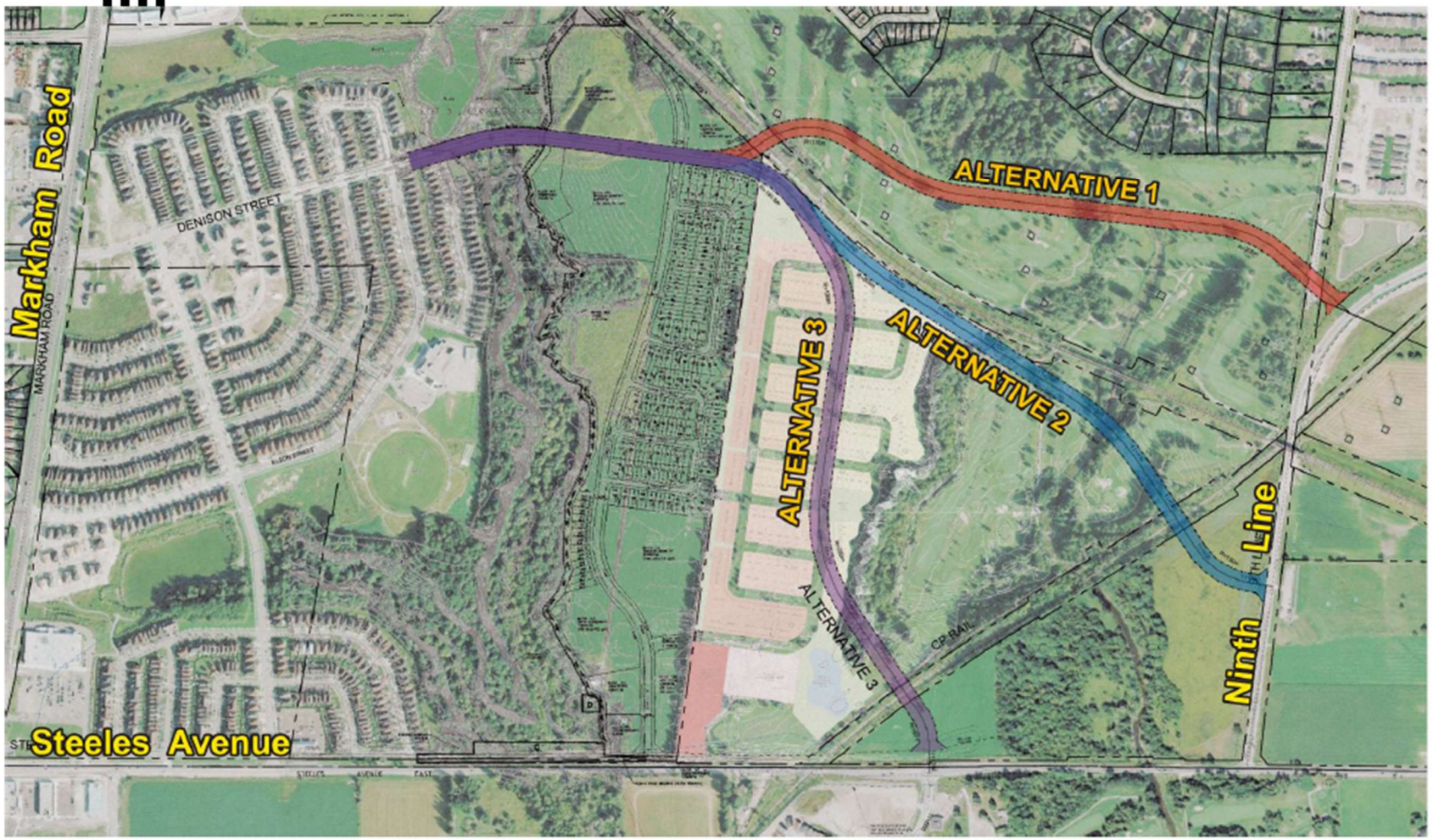
Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Denison Street Extension (Feasibility Study)

ALIGNMENT ALTERNATIVES



2020 PROJECT FUNDING REQUEST FORM

Number: 20034

Project Cost: $1,234,900

Project Name: **Downstream Improvements Program (Construction)**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Nehal Azmy

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Project is required to mitigate watercourse erosion and sedimentation resulting from upstream development, natural causes, and to protect fish habitat. This project will reduce risk of flooding and provide various erosion protection and sediment removal to various streams in the City. Locations include Mount Joy Creek (MJ-43-28) Mount Joy Creek (MJ-ES-05), Rouge River (R-ES-45) and German River Creek (GMC-13/GMC-57).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	1,100,000	0
Internal Charges:	115,500	0
External Consulting:	0	0
Sub Total:	1,215,500	0
HST Impact:	19,360	0
Total Project Cost:	**1,234,900**	**0**

NOTES

This request is for construction of above mentioned four erosion restoration sites. These sites are part of 30 erosion sites identifies in the 2014 City Wide Erosion Master Study Implementation. As part of the detailed design, Toronto and Region Conservation Authority (TRCA) reviewed and approved the restoration plan and has issued the TRCA permit for construction. (Not all erosion is caused by development or growth).
Funding: 65% DC and 35% Life Cycle

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	802,685	0	0	0	0	0	0
Operating Funded Life Cycle	432,215	0	0	0	0	0	0
TOTAL FUNDING	**1,234,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
Hard - Sidewalks - City's Watercourses - Erosion Control -		802,685	12,050,647
TOTAL FUNDING		802,685	12,050,647

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

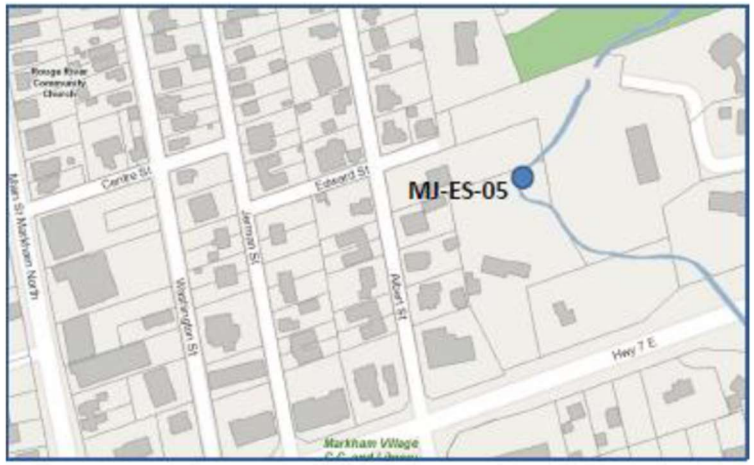
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Amount in the DCBS is for the entire downstream improvement program. Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

2020 Downstream Erosion Protection

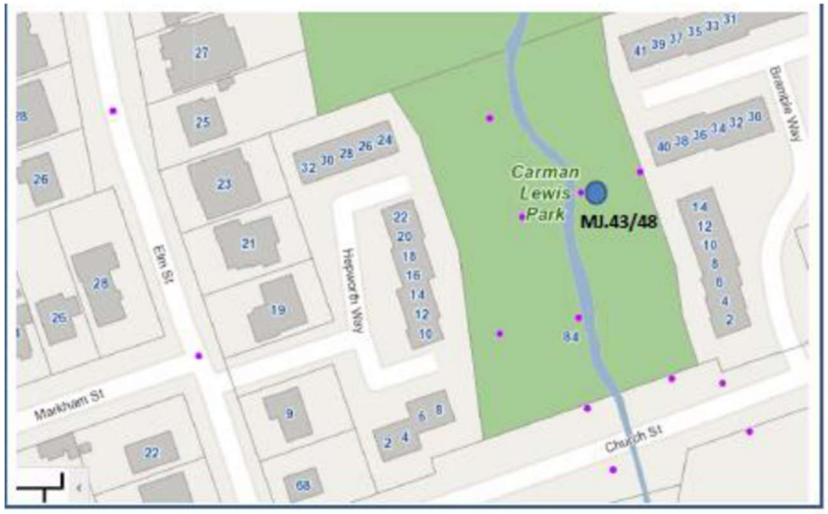
EROSION RESTORATION (SITE 1 – R-ES-45)

LOCATION PLAN - FIGURE 1



EROSION RESTORATION (SITE 2 – MJ-ES-05)

LOCATION PLAN - FIGURE 2



EROSION RESTORATION (SITE 3 – MJ.43/48)

LOCATION PLAN - FIGURE 3

EROSION RESTORATION (SITE 4 – GMC.13/57)

LOCATION PLAN - FIGURE 4

2020 PROJECT FUNDING REQUEST FORM

Number: 20035

Project Cost: $319,100

Project Name: **Downstream Improvements Program (Design)**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Project Mgr: Nehal Azmy

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Project is required to mitigate watercourse erosion and sedimentation resulting from upstream development, and to protect fish habitat. This project will reduce risk of flooding and provide various erosion protection and sediment removal to various streams in the City.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	1,925,000
Internal Charges:	39,300	191,812
External Consulting:	275,000	0
Sub Total:	314,300	2,116,812
HST Impact:	4,840	33,880
Total Project Cost:	**319,100**	**2,150,700**

NOTES

Based on estimates from previous years. This project is for Design in the amount of $319,100. Construction to commence in 2021 or later in the amount of $2,150,700. Total Project cost is $2,469,800 ($319,100 + $2,150,700). Coordination and permits from Environmental Agencies (i.e. TRCA, MNRF) will be required. Locations include: Tributary to East Don River (TED)-1, TED-2, TED-3. These three locations are located on the East Don Tributary within the Thornhill area between Steeles Avenue and Proctor Avenue, east of Henderson Road

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	207,415	0	0	0	0	0	1,397,955
Operating Funded Life Cycle	111,685	0	0	0	0	0	752,745
TOTAL FUNDING	**319,100**					**0**	**2,150,700**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - Sidewalks - City's Watercourses - Erosion Control -		207,415	12,050,647
TOTAL FUNDING		207,415	12,050,647

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Amount in the DCBS is for the entire downstream improvement program. Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

2020 PROJECT FUNDING REQUEST FORM

Number: 20036

Project Cost: $401,200

Project Name: **Honda Blvd Extension to 19th Avenue (Design)**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Project Mgr: Marija Ilic

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☑ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Detailed Design for construction of Honda Blvd extension from the Trans Canada pipleline to 19th Avenue (475m length).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	1,485,000
Internal Charges:	45,000	128,956
External Consulting:	350,000	0
Sub Total:	395,000	1,613,956
HST Impact:	6,160	26,136
Total Project Cost:	**401,200**	**1,640,100**

NOTES

404 North Collector Roads (EA) will be filed by fall 2019. Detailed Design is to be completed for the remaining section of Honda Blvd. Approved DC Background study assumed that Honda Blvd was to be constructed as a part of a development (i.e. subdivision). Based on recent information, it was confirmed that this section of Honda Blvd is no longer included in the plan. As such, Honda Blvd will be revised to be 100% CWH in next DC update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	401,200	0	0	0	0	0	1,640,100
TOTAL FUNDING	**401,200**					**0**	**1,640,100**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
Hard - Roads - Honda Blvd - Extension to 19th Avenue	2020	401,200	401,200
TOTAL FUNDING		401,200	401,200

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

LEGENDS:

REGULATION LIMIT
UNEVALUATED WET LAND
WATERCOURSE
WATERCOURSE

MARKHAM 404 COLLECTORS EA
ROAD PLANS

2020 PROJECT FUNDING REQUEST FORM

Number: 20037

Project Cost: $496,900

Project Name: **Main Street Unionville Road Reconstruction (Design)**

Repair/Replace

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Alain Cachola

Cost Validation: Internal peer review

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Retain a consultant to prepare and finalize an upgraded design of Historic Main Street Unionville in compliance with the Streetscape Master Plan.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	2,000,000
Internal Charges:	39,000	183,000
External Consulting:	450,000	0
Sub Total:	489,000	2,183,000
HST Impact:	7,920	35,200
Total Project Cost:	**496,900**	**2,218,200**

NOTES

The existing streetscaping is in need of repairs and with the completion of the Unionville Vision Plan it is recommended that the streetscaping be updated. This will be a multiyear project from 2020 - 2022. Future phases only includes road component and other components will be determined based on consultant's design.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Non-DC Growth	496,900	0	0	0	0	0	2,218,200
TOTAL FUNDING	**496,900**					**0**	**2,218,200**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20038

Project Cost: $965,000

Project Name: **Markham Centre Trails - Phase 1 (Construction)**

Commission: Development Services

Department: Engineering

Project Mgr: Alberto Lim

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Construction of a trail system adjacent to Rouge River within Markham Centre. This off road trail system will complement the active transportation infrastructure on Hwy 7, Birchmount Road and Verdale Crossing and showcase the natural environment of the Rouge Valley. Phase 1 is an approximately 800m section on the north side of the Rouge River from Warden Avenue to Birchmount Road. Detailed design is being finalized.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	800,000	10,256,159
Internal Charges:	100,000	843,874
External Consulting:	50,000	2,602,770
Sub Total:	950,000	13,702,803
HST Impact:	14,960	226,317
Total Project Cost:	**965,000**	**13,929,100**

NOTES

The feasibility study for the trails system on Markham Centre is complete. The detailed design of the trail system for Phase 1 will be completed by Q3 2019. Construction cost and operating impact will be determined upon completion of the project. Environmental permits may be required for project, as such, a provision for detailed design is included. This section of trail will include smart features as well.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	627,250	0	0	0	0	0	9,053,915
Other Internal	337,750	0	0	0	0	0	4,875,185
TOTAL FUNDING	**965,000**					**0**	**13,929,100**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
Hard - Studies - City Wide - Bike Lanes on City, Regional and Developers		627,250	11,325,356
TOTAL FUNDING		627,250	11,325,356

Life Cycle

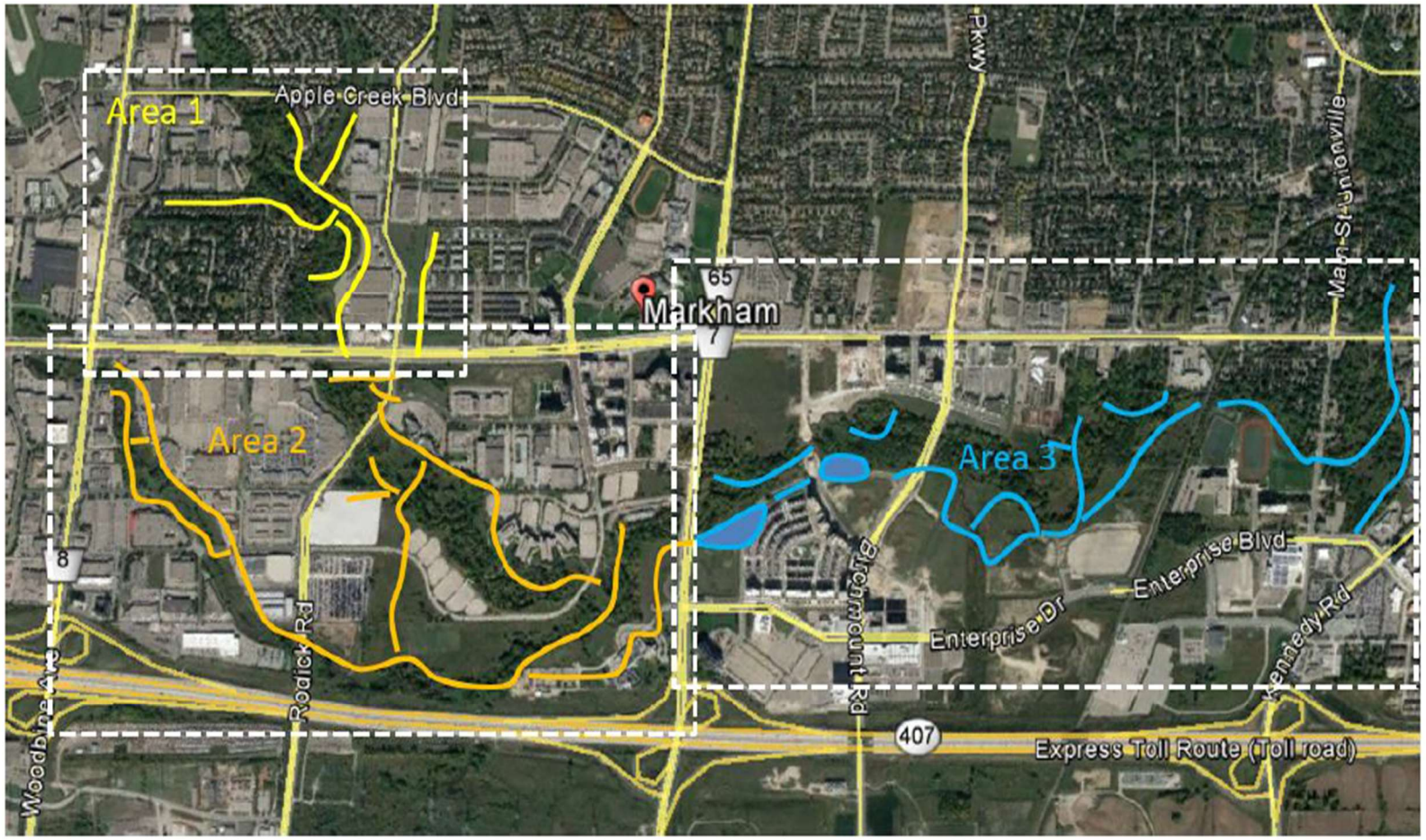
Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Markham Centre Greenlands Master Plan Map



2020 PROJECT FUNDING REQUEST FORM

Number: 20039

Project Cost: $230,500

Project Name: **Markham Centre Trails - Phase 2 (Design)**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Project Mgr: Alberto Lim

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The Markham Centre Trails project EA work is scheduled to be completed by end of 2020. This budget request is for the design of the second phase of the trails on Markham Centre. This location is on the north side of the Rouge River from Birchmount Road to Sciberras Road.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	9,665,390
Internal Charges:	27,000	867,783
External Consulting:	200,000	3,883,171
Sub Total:	227,000	14,416,344
HST Impact:	3,520	238,455
Total Project Cost:	**230,500**	**14,654,800**

NOTES

Total trail length of phase 2 is 830m.
Total trail length of other phases is about 15Km.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	149,825	0	0	0	0	0	9,525,620
Other Internal	80,675	0	0	0	0	0	5,129,180
TOTAL FUNDING	**230,500**					**0**	**14,654,800**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - Studies - City Wide - Bike Lanes on City, Regional and Developers		149,825	11,325,356
TOTAL FUNDING		149,825	11,325,356

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20040

Project Cost: $344,100

Project Name: **New Traffic Signals - Kirkham/New Delhi (D & C)**

New Asset/Expansion

Commission: Development Services

Useful Life: 30 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Justin Chin

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☑ 8 ☐

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Design, construction and contract administration for new traffic signals at the intersection of Kirkham Dr. @ New Delhi Dr. Project will also include civil works to meet legislative requirements, as per the Accessibility for Ontarians with Disabilities Act (AODA). Design and construction tender/award to be before end of 2020. Construction to commence in spring 2021.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	265,170	0
Internal Charges:	38,618	0
External Consulting:	35,000	0
Sub Total:	338,788	0
HST Impact:	5,283	0
Total Project Cost:	**344,100**	**0**

NOTES

Intersection meets the minimum Provincial warrants criteria for the provision of Traffic Signals. Ongoing O&M costs is $3k.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
	0	0	0	0	0	0	0
DCA	344,100	0	0	0	0	0	0
TOTAL FUNDING	**344,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$3,000	$0	$3,000

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - Intersection - City-wide Interesecton Pedestrian Signal (Lump Sum) - 5 -		344,100	1,754,720
TOTAL FUNDING		344,100	1,754,720

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20041

Project Cost: $601,200

Project Name: **Pedestrian Accessibility Improvements Program–Phase 6 of 7**

New Asset/Expansion

Commission: Development Services

Department: Engineering

Project Mgr: Justin Chin

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☑ 8 ☑

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This is phase 6 of 7 of implementation of pedestrian accessibility improvements at existing signalized intersections of Yorktech/Addiscott/Bodrington, Esna Park Drive/IBM Access, Alden/Bentley, Bullock/Loblaws, and Golden/Fonda. The project is construction only (designs complete). Proposed improvements include the provision of accessible pedestrian signal (APS) stations, modifications to existing signal infrastructure, improvements to sidewalk/crosswalk alignments, tactile sidewalk ramps and enhanced "zebra" crosswalks. Since 2012, 47 signalized intersections have received accessibility improvements through this program.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	521,500	735,000
Internal Charges:	70,537	84,150
External Consulting:	0	0
Sub Total:	592,037	819,150
HST Impact:	9,178	12,936
Total Project Cost:	**601,200**	**832,100**

NOTES

As per the Accessibility Improvements standards in Section 80.21 through Section 80.31 of Ontario Regulations 191/11. The AODA (Accessibility for Ontarians with Disabilities Act) requires that signalized intersections be compliant by Jan 1, 2025. Increased traffic and pedestrian volumes at these intersections is also triggering the need for these improvements.
This project will improve pedestrian safety at 5 intersections and encourage active transportation. Future Phase 7 may potentially consist of 5 intersections.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components				TOTAL	Future Phases
DCA	390,780	0	0	0	0	0	540,865
Non-DC Growth	210,420	0	0	0	0	0	291,235
TOTAL FUNDING	**601,200**					**0**	**832,100**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
Hard - Special Projects - City Wide - Travel Demand Management		390,780	3,331,694
TOTAL FUNDING		390,780	3,331,694

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Pedestrian Accessibility Improvement Program			
# of Locations	**Intersection**	**Project Year**	**Status**
PHASE 1			
1	Apple Creek Boulevard & Town Centre Boulevard / Hollingham Road	2011	Completed
2	Bullock Drive & Centennial GO Station	2011	Completed
3	Bullock Drive & Markville Road	2011	Completed
4	Bullock Drive & Snider Drive	2011	Completed
5	Green Lane & Thornhill Square Access	2011	Completed
6	John Street & Bayview Fairways Drive	2011	Completed
7	John Street & west of Dawn Hill Trail (Mid-block pedestrian signal)	2011	Completed
8	John Street & Porterfield Crescent	2011	Completed
9	Main Street Markham & Ramona Boulevard	2011	Completed
10	Town Centre Boulevard & Cox Boulevard	2011	Completed
PHASE 2			
1	Birchmount Road & Harvest Moon Drive / Risebrough Circuit	2012	Completed
2	Birchmount Road & Highgate Drive / Risebrough Circuit	2012	Completed
3	Denison Street & Townley Avenue	2012	Completed
4	YMCA Blvd & Rivis Road	2012	Completed
5	Green Lane & Willowbrook Road / Aileen Road	2012	Completed
6	Henderson Ave & Proctor Avenue / Glen Cameron Road	2012	Completed
7	John Street & Bishops' Cross Park (formerly John/Porterfield)	2012	Completed
8	John Street & Steelcase Road West	2012	Completed
9	Esna Park Drive & Denison Street	2012	Completed
10	Alden Road & Hood Road / 14th Avenue	2012	Completed
PHASE 3			
1	Denison Street & Featherstone Avenue	2013	Completed
2	Denison Street & Old Kennedy Road / Fresno Court	2013	Completed
3	Enterprise Boulevard & Main Street Unionville	2013	Completed
4	Enterprise Boulevard & Rivis Road	2013	Completed
5	Rodick Road & Calvert Rd	2013	Completed
6	Middlefield Road & Highglen Avenue	2013	Completed
7	Rodick Road & Apple Creek Boulevard	2013	Completed
8	Denison Street & Gorvette Drive / Milliken Meadows Drive	2013	Completed
9	Denison Street & Middlefield Road	2013	Completed
PHASE 4			
1	Apple Creek Boulevard & John Button Boulevard / Crispin Court	2014	Completed
2	Denison Street & Aldergrove Drive	2014	Completed
3	Denison Street & Brimley Road	2014	Completed
4	Denison Street & Coppard Avenue	2014	Completed
5	Denison Street & Hillcroft Drive	2014	Completed
6	Denison Street & Teddington Avenue	2014	Completed
7	Brimley Rd & Highglen Ave	2014	Completed
PHASE 5			
1	Birchmount Road & McNabb Street / Micro Court	2016	Completed
2	Denison Street & Victoria Park Avenue	2016	Completed
3	Denison Street & Coxworth Street	2016	Completed
4	Commerce Valley Drive West & South Park Road	2016	Completed
5	Rodick Road & Hollingham Road / John Button Boulevard	2016	Completed
6	Denison Street & Clayton Drive	2016	Completed
PHASE 6			
1	Esna Park Drive & IBM Access	2020	2020 Budget Request
2	Alden Road & Bentley Street	2020	2020 Budget Request
3	Bullock Drive & Loblaws Access	2020	2020 Budget Request
4	Yorktech Drive & Addiscott Court	2020	2020 Budget Request
5	Golden Avenue & Fonda Road	2020	2020 Budget Request
PHASE 7			
1	John Street & Aileen Road	2024	"Phase 7" locations were previously identified to be completed through future development applications or capital works.
2	John Street & John Street Service Road	2024	
3	Main St Markham & Parkway Avenue/Bullock Drive	2024	
4	Old Kennedy Road & Aldergrove Drive	2024	
5	Copper Creek Drive & Bernbridge Road	2024	
6	Middlefield Road & Elson Street	2024	

2020 PROJECT FUNDING REQUEST FORM

Number: 20042

Project Cost: $156,600

Project Name: **Rouge Valley Trail (Kennedy Road North) – Design**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Project Mgr: Alain Cachola

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to design a new trail connection from the Rouge Valley Trail to Kennedy Road and Austin Drive intersection. During the spring season, sections of the Rouge Valley Trail is expected to be under water. This proposed trail connection will allow trail users to access the trail by providing an alternate route that will connect to the other sections of the Rouge Valley Trail over Kennedy Road. Construction is scheduled for 2021.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	20,000	200,000
Internal Charges:	19,200	27,000
External Consulting:	115,000	15,000
Sub Total:	154,200	242,000
HST Impact:	2,376	3,784
Total Project Cost:	**156,600**	**245,800**

NOTES

Region of York has an annual grant program that provides funding for trail systems. Staff recommend that we apply for this funding for the construction (2021) which will reduce the financial burden to the City. The project cost shown does not include any Regional funding.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	101,790	0	0	0	0	0	159,770
Non-DC Growth	54,810	0	0	0	0	0	86,030
TOTAL FUNDING	**156,600**					**0**	**245,800**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA

Name	Year	Amount	Amount in Study
Hard - Studies - City Wide - Bike Lanes on City, Regional and Developers		101,790	11,325,356
TOTAL FUNDING		101,790	11,325,356

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20043

Project Cost: $443,000

Project Name: **Servicing & Environmental Study- Markville Secondary Plan**

Commission: Development Services

Department: Engineering

Project Mgr: Nhat-Anh Nguyen

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The Servicing and Environmental Study will provide an efficient municipal infrastructure network to service Markville Secondary Plan area. The deliverable includes, programs and policies required to support the land use concepts of the study area; including a phasing strategy to help guide development and development decisions. The outcome of the Secondary Plan study will be policies for the area including detailed direction for land use, built form, densities, infrastructure, transportation, community services, environment, open space.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	400,000	0
Internal Charges:	36,000	0
External Consulting:	0	0
Sub Total:	436,000	0
HST Impact:	7,040	0
Total Project Cost:	**443,000**	**0**

NOTES

Undertaking a Servicing and Environmental Study for the secondary plan will ensure an efficient municipal infrastructure network to support development in the secondary plan area. The Study cost breakdown based on recent awards is generally as follows:
Servicing Study for Markville Secondary Plan - $150,000
Environmental and Storm Water Management Study for Markville Secondary Plan = $ 250,000
*Subject to an additional staff request approval

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	443,000	0	0	0	0	0	0
TOTAL FUNDING	**443,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - City Wide - Trans., Servicing, Enviro., Cycling, Traffic Calming, Noise, Subwatershed, Erosion Study Update etc.		443,000	10,602,000
TOTAL FUNDING		443,000	10,602,000

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20044

Project Cost: $1,500,000

Project Name: **Sidewalk Program (Construction)**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Project Mgr: Mark Siu

Category: Major

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To construct new sidewalks in various areas within the City to provide pedestrian access and link to the City's sidewalk network. The design of these sidewalk sections will be completed by Q4 2019. Locations include: 1) Laidlaw Blvd – Bullock Dr to Hwy 7, 2) 14th Avenue – Woodbine to Rodick Rd, 3) Commerce Valley Dr East – Minthorn Blvd to Leslie Ave, 4) Highglen Avenue – Kennedy Rd to Noble St, 5) Grandview Ave – Dudley to Henderson Ave, 6) Dudley Ave – Meadowview Ave to Grandview Ave, 7) Lee Ave – Kennedy Rd to Brimley Rd, 8) Minthorn Blvd – Commerce Valley Drive to 358 Minthorn Blvd, 9) Scriberras Rd - Ferrah St to Lichfield Rd, 10) Scriberras Rd – Fred Varlet Rd to 85 m north of Fred Varley Rd, 11) Donald Cousens Pkwy – Major Mac. Dr E to 150m south of Major Mac., 12) Yorktech Dr – 232 Yorktech Dr to Woodbine Ave.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	1,272,000	0
Internal Charges:	127,949	0
External Consulting:	76,320	0
Sub Total:	1,476,269	0
HST Impact:	23,730	0
Total Project Cost:	**1,500,000**	**0**

NOTES

This request is for the construction of new sidewalks for 2020. Estimated length of sidewalk is approximately 5.6 kms. Final sidewalk locations are subject to change upon Director's approval based on design and pending property availability, utility relocations and other site constraints.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	1,500,000	0	0	0	0	0	0
TOTAL FUNDING	**1,500,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - Miscellaneous new sidewalks		1,500,000	2,019,500
TOTAL FUNDING		1,500,000	2,019,500

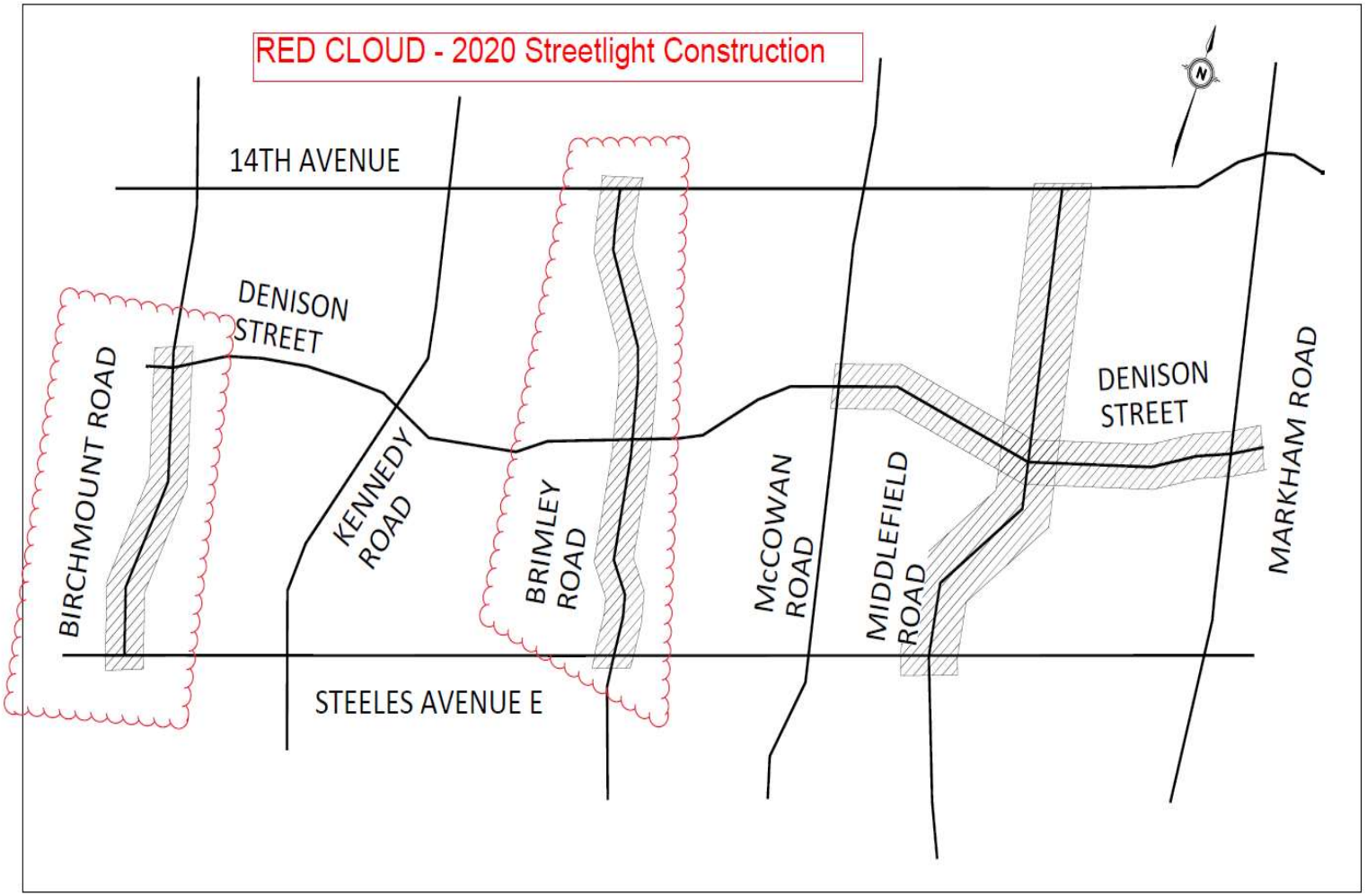
Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:


RED CLOUD - 2020 Streetlight Construction
14TH AVENUE
DENISON STREET
BIRCHMOUNT ROAD
KENNEDY ROAD
BRIMLEY ROAD
McCOWAN ROAD
MIDDLEFIELD ROAD
DENISON STREET
MARKHAM ROAD
STEELES AVENUE E

2020 PROJECT FUNDING REQUEST FORM

Number: 20045

Project Cost: $519,500

Project Name: **Sidewalk Program (Design)**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Project Mgr: Mark Siu

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To complete the detailed design for new sidewalks in various areas within the City to provide pedestrian access and links to the City's sidewalk network. The number of locations to be designed for this budget will be based on the information provided to and approved by DSC in November 2018. 1)Aileen Rd – John Street to Green Lane, 2) Henderson Ave – Steeles Ave to Grandview Ave, 3) Willowdale Blvd - Steeles Ave to Grandview Ave, 4)Allstate Pkwy – Centurian Dr to North of Valleywood Dr, 5)Frontenac Dr – Hwy 7 to Centurian Dr, 6) Hazelton Ave – James Joyce Dr to Rinas Ave, 7)Valleywood Dr – Allstate Blvd to Renfrew Dr, 8)Windridge Dr – Robinson St to Hwy 7, 9)14th Ave – 100m west of Markham Rd to Markham Rd, 10) Cochrane Dr – Perth Ave to Cochrane Dr, 11) Commerce Valley Dr W – Leslie Ave to Hwy 7, 12)Lanark Rd – Cochrane Dr to Woodbine Ave.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	57,480	0
External Consulting:	454,000	0
Sub Total:	511,480	0
HST Impact:	7,990	0
Total Project Cost:	**519,500**	**0**

NOTES

Based on estimates from previous projects. An estimated 7.0km will be designed as part of this request. Unit cost is consistent with recent award plus inflation. These locations are subject to change upon Director's approval based on design and site conditions.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	519,500	0	0	0	0	0	0
TOTAL FUNDING	**519,500**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - Miscellaneous new sidewalks		519,500	2,019,500
TOTAL FUNDING		519,500	2,019,500

Life Cycle

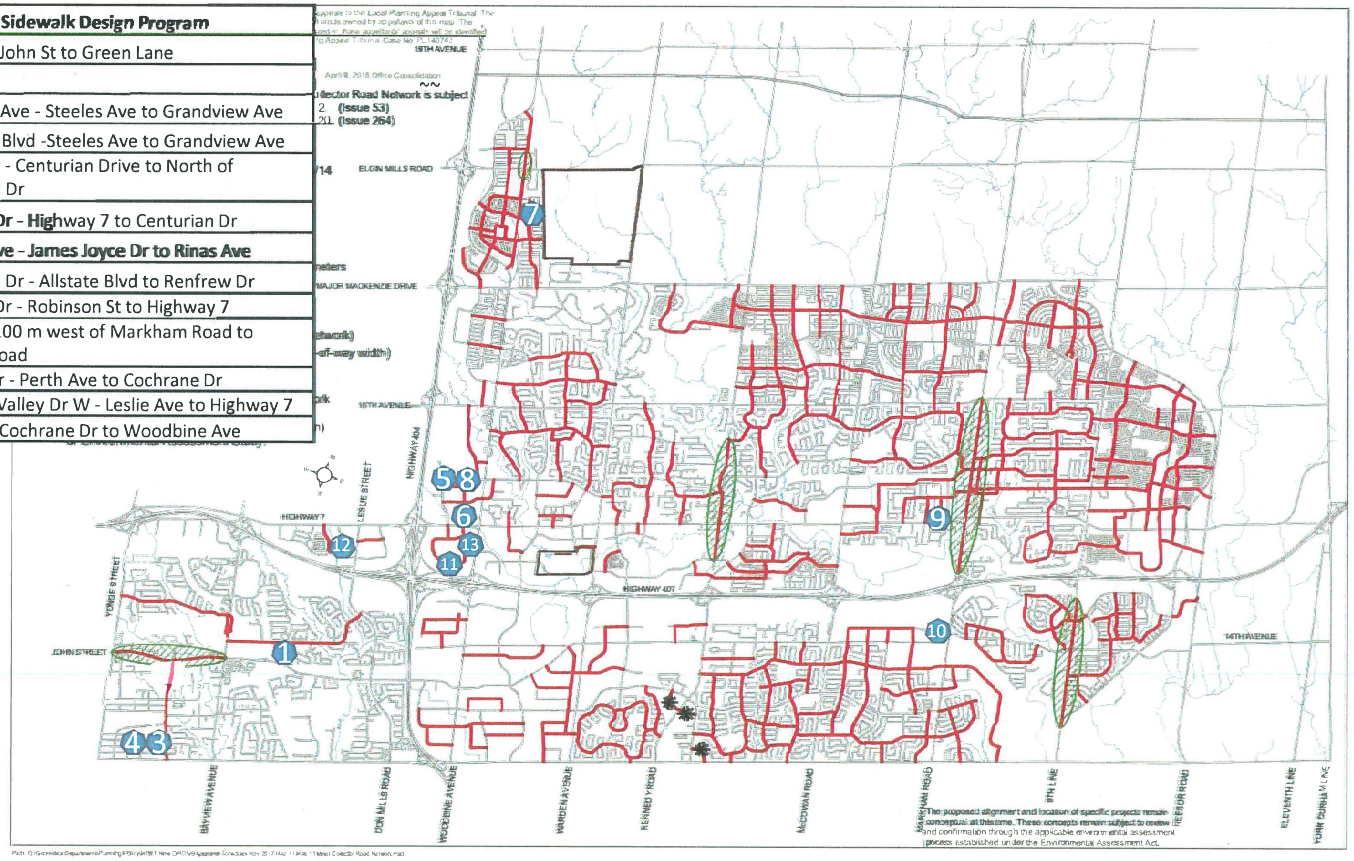
Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 Sidewalk Design Program	
1	Aileen Rd - John St to Green Lane
3	Henderson Ave - Steeles Ave to Grandview Ave
4	Willowdale Blvd -Steeles Ave to Grandview Ave
5	Allstate Pky - Centurian Drive to North of Valleywood Dr
6	Frontenac Dr - Highway 7 to Centurian Dr
7	Hazelton Ave - James Joyce Dr to Rinas Ave
8	Valleywood Dr - Allstate Blvd to Renfrew Dr
9	Windridge Dr - Robinson St to Highway 7
10	14th Ave - 100 m west of Markham Road to Markham Road
11	Cochrane Dr - Perth Ave to Cochrane Dr
12	Commerce Valley Dr W - Leslie Ave to Highway 7
13	Lanark Rd - Cochrane Dr to Woodbine Ave



2020 PROJECT FUNDING REQUEST FORM

Number: 20046

Project Cost: $76,300

Project Name: **Smart Commute Markham-Richmond Hill**

Commission: Development Services

Department: Engineering

Project Mgr: Fion Ho

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Markham is a funding partners of Smart Commute Markham-Richmond Hill. Other funding partners are Metrolinx, York Region and Town of Richmond Hill. Smart Commute Markham-Richmond Hill offers services and programs to local employers and their employees to reduce use of private cars in commuting to and from work. Alternative modes includes carpooling, cycling, transit, telework, emergency ride home program and more.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	76,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	76,300	0
HST Impact:	0	0
Total Project Cost:	**76,300**	**0**

NOTES

This is an annual program and will be requested each year. A restructuring of this program is being discussed with the funding partners. Staff recommends the same level of funding be provided by Markham.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	76,300	0	0	0	0	0	0
TOTAL FUNDING	**76,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - Special Projects - City Wide - Travel Demand Management		76,300	3,331,694
TOTAL FUNDING		76,300	3,331,694

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20047

Project Cost: $713,400

Project Name: **Staff Salary Recovery**

Commission: Development Services

Department: Engineering

Project Mgr: Ali Hasan

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Cost recovery for engineering staff on projects related to Region of York or Metrolinx projects or other Jurisdictions. The list of projects are as follows: Metrolinx Projects, Steeles Grade Separation, GO Expansion, Metrolinx RTP, Region of York EA for Kennedy Road, McCowan Road, 16th Avenue and Warden Avenue, EA Review for North Markham Development (Bridges), Region of York Design for the Hwy 404 Mid-block Crossing at 16th Avenue, Active Transportation Plan, Smart Commute and Regional Road Acceleration program.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	713,400	0
External Consulting:	0	0
Sub Total:	713,400	0
HST Impact:	0	0
Total Project Cost:	**713,400**	**0**

NOTES

Staff salary recovery equivalent to 7 FTE staff

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	713,400	0	0	0	0	0	0
TOTAL FUNDING	**713,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - City Wide - Trans., Servicing, Enviro., Cycling, Traffic Calming, Noise, Subwatershed, Erosion Study Update etc.		713,400	10,602,000
TOTAL FUNDING		713,400	10,602,000

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20048

Project Cost: $764,800

Project Name: **Streetlight Program (Construction)**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Major

Project Mgr: Peter Chan

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To provide new streetlight infrastructure to areas that require streetlighting upgrade.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	634,000	0
Internal Charges:	81,000	0
External Consulting:	38,000	0
Sub Total:	753,000	0
HST Impact:	11,827	0
Total Project Cost:	**764,800**	**0**

NOTES

Based on estimates from previous projects. Locations for construction are Birchmount - Steeles to Denison and Brimley - Steeles to 14th Avenue. Note that the locations are tentative and subject to change based on design and site conditions. Staff to be able to revise location if required provided that the budget is not impacted.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	764,800	0	0	0	0	0	0
TOTAL FUNDING	**764,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - Illumination - City-wide Illumination Requires		764,800	3,344,000
TOTAL FUNDING		764,800	3,344,000

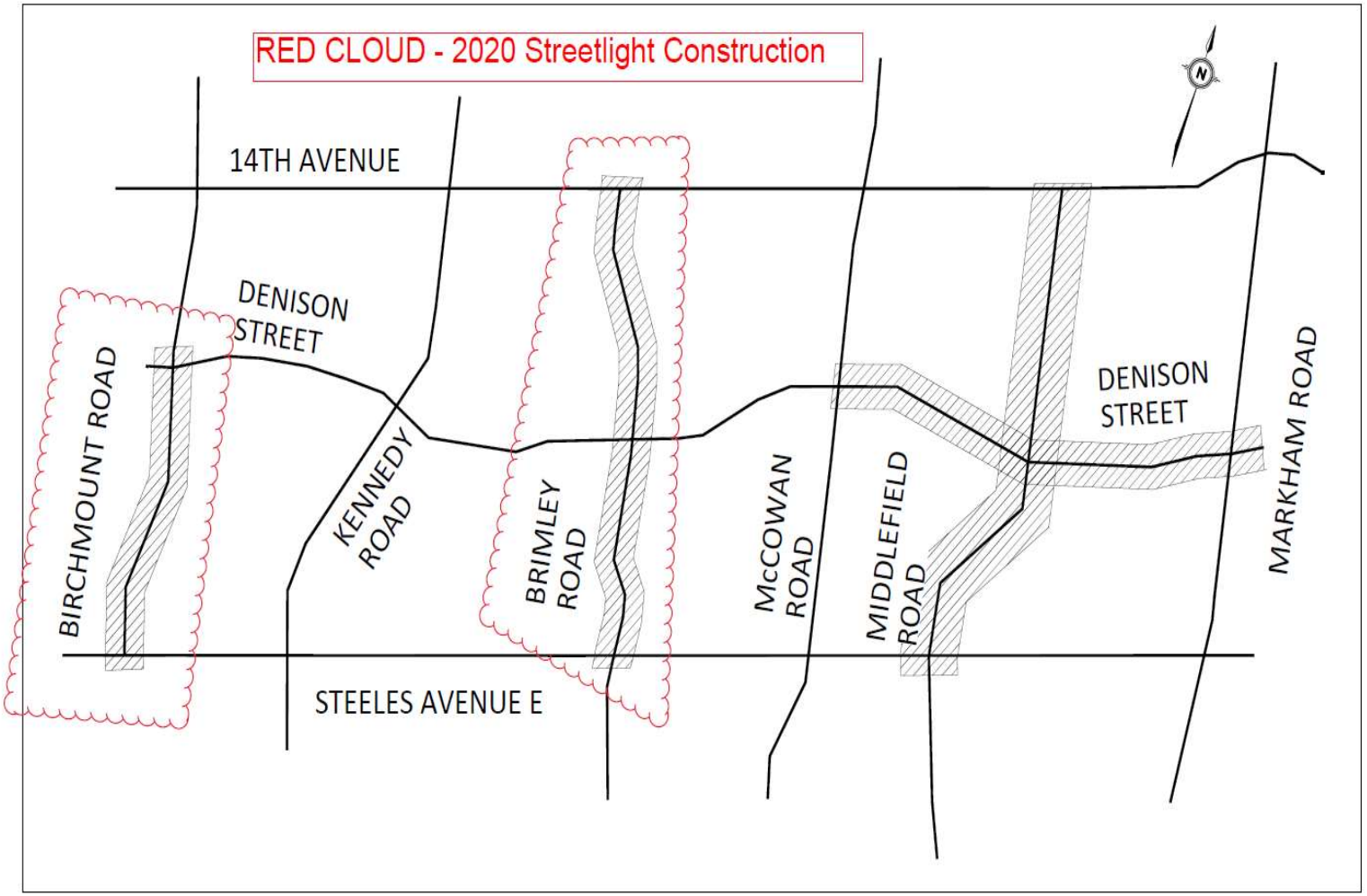
Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:


RED CLOUD - 2020 Streetlight Construction
14TH AVENUE
DENISON STREET
BIRCHMOUNT ROAD
KENNEDY ROAD
BRIMLEY ROAD
McCOWAN ROAD
MIDDLEFIELD ROAD
DENISON STREET
MARKHAM ROAD
STEELES AVENUE E

2020 PROJECT FUNDING REQUEST FORM

Number: 20049

Project Cost: $175,100

Project Name: **Streetlighting Program (Design)**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Minor

Project Mgr: Peter Chan

Cost Validation: Other(specify in Notes)

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To complete detailed design for new streetlight infrastructure on collector roads that require lighting. The purpose of the program is to carry a design to enhance the lighting levels for drivers and pedestrians.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	22,500	0
External Consulting:	150,000	0
Sub Total:	172,500	0
HST Impact:	2,640	0
Total Project Cost:	**175,100**	**0**

NOTES

Based on estimates from previous projects. To complete the detailed design for streetlighting for number of locations. Locations are currently being reviewed by staff and will be determined at a later date. Locations to be compared with the sidewalk locations to determine if lighting is required.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	175,100	0	0	0	0	0	0
TOTAL FUNDING	**175,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - Illumination - City-wide Illumination Requires		175,100	3,344,000
TOTAL FUNDING		175,100	3,344,000

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20050

Project Cost: $196,900

Project Name: **Traffic Asset Replacement**

Repair/Replace

Commission: Development Services

Useful Life: Pre Approval: ☐

Department: Engineering

Project Mgr: Justin Chin

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Condition assessment

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of existing Traffic Assets, as identified in the Traffic Life Cycle Reserve Study and in-field conditions assessment. Project includes replacement of various traffic signal system components and speed monitoring equipment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	193,500	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	193,500	0
HST Impact:	3,406	0
Total Project Cost:	**196,900**	**0**

NOTES

Assets are replaced based on Traffic Life Cycle (varies between 5 - 30 years) and condition assessment. Work includes: Audible pedestrian push buttons at 6 intersections ($39k); LED indication replacements at 20 intersections ($101k); Traffic signal heads at 1 intersection ($10k); Two speed radar display boards ($11k); Emergency vehicle pre-emption detectors & detector cards at 6 and 5 locations, respectively ($33k). Amount is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	196,900	0	0	0	0	0	0
TOTAL FUNDING	**196,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	196,900
Amount Incl HST	196,900
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20051

Project Cost: $88,900

Project Name: **Traffic Operational Improvements**

New Asset/Expansion

Commission: Development Services

Useful Life: 0 Pre Approval: ☐

Department: Engineering

Category: Annual

Project Mgr: David Porretta

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project accommodates initiatives and requests that arise throughout the year from staff, residents or Council to improve traffic operations and safety for all users of the City's transportation network. Improvements include sign and traffic control devices, pavement markings for roadways and cycling facilities, and minor concrete and asphalt civil works to address and/or enhance pedestrians and cyclist safety.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	75,000	0
Internal Charges:	12,593	0
External Consulting:	0	0
Sub Total:	87,593	0
HST Impact:	1,320	0
Total Project Cost:	**88,900**	**0**

NOTES

Budget request includes traffic control signs/devices/equipment ($20k), road/cycling pavement markings ($40k), minor concrete/asphalt civil works ($15k).

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Tax	88,900	0	0	0	0	0	0
TOTAL FUNDING	**88,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20052

Project Cost: $230,500

Project Name: **Transportation Study – Markville Secondary Plan**

Commission: Development Services

Department: Engineering

Project Mgr: Joseph Palmisano

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The Transportation Study will provide a comprehensive transportation infrastructure plan, programs and policies to service Markville secondary plan area. The deliverable include a phasing strategy to help guide plan development and recommendations for a transportation system that provides a more balanced choice of mobility options for all users, including pedestrians, cyclists, and transit riders.

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PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	27,000	0
External Consulting:	200,000	0
Sub Total:	227,000	0
HST Impact:	3,520	0
Total Project Cost:	**230,500**	**0**

NOTES

Follows Council direction to prepare and adopt the Markville secondary plans. Undertaking a Transportation Study for the secondary plan will help ensure a sustainable transportation system and a transportation demand management strategy will be in place to support development in these areas. The Study cost based on recent awards is generally $200,000.
*Subject to an additional FTE approval

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	230,500	0	0	0	0	0	0
TOTAL FUNDING	**230,500**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study
Hard - Special Projects - City Wide - Travel Demand Management		230,500	3,331,694
TOTAL FUNDING		230,500	3,331,694

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20054

Project Cost: $18,600

Project Name: **Museum Mimsy Upgrade**

New Asset/Expansion

Commission: Corporate Services

Department: ITS

Project Mgr: Elton Chong / Janet Reid

Useful Life: 8 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Purchase of mWeb module from current software vendor. mWeb will permit online publication of selections of the Mimsy catalogue for public access via markham.ca . This request is for purchase of software, initial year of maintenance, minor customization of the product as well as extra museum staff time to create a publication of approximately 800 historical photographs. Project will feature extensive research and writing of a museum volunteer representing 3,500+ hrs of service to community.

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PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	4,100	0
Internal Charges:	7,900	0
External Consulting:	6,400	0
Sub Total:	18,400	0
HST Impact:	185	0
Total Project Cost:	**18,600**	**0**

NOTES

Existing Mimsy web-interface does not have the necessary features to publish content about the Museum's collections in a manner consistent with the standards of the ITS Portal. The vendor (Axiell) offers a newer alternative product. Internal Chargeback - OTCFT Curatorial Assistant 40hrs. The annual maintenance cost of the upgraded software will be $23,500 of which $15,000 is already in the budget.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Tax	18,600	0	0	0	0	0	0
TOTAL FUNDING	**18,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$8,500	$0	$8,500

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20055

Project Cost: $10,300

Project Name: **ITS - Recreation Fitness Training Management Application**

Repair/Replace

Commission: Corporate Services

Useful Life: 5 Pre Approval: ☐

Department: ITS

Category: Minor

Project Mgr: June Fry/Anthony Ierulli

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing fitness training management application for the fitness members in the City of Markham.

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PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	10,096	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	10,096	0
HST Impact:	178	0
Total Project Cost:	**10,300**	**0**

NOTES

The Recreation fitness application was originally used to provide members with fitness plans. This technology has been in use since 2005. The fitness centre application and its interface is currently out of date and requires an update to modern technology. New techonology encompasses fitness plans with enhanced features that allows staff to communicate with its membership. There are currently 5,375 fitness members that have access to this fitness application. Recreation will be sole sourcing the software program that fits the specific needs of fitness members in Markham. The cost is consistent with recent quote.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Tax	10,300	0	0	0	0	0	0
TOTAL FUNDING	**10,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$9,000	$0	$9,000

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20056

Project Cost: $30,500

Project Name: **ITS - Recreation Facility Tablet Project**

Commission: Corporate Services

Department: ITS

Project Mgr: Mark Elsenaar

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 10 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to purchase twelve (12) tablets that are to be utilized by facility staff to help administer and document facility standards. The ability to have access to cleaning schedules by room and to have real time tracking will help ensure that maintenance standards are met and that proper accountability is attached to work assignments.

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PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	30,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	30,000	0
HST Impact:	528	0
Total Project Cost:	**30,500**	**0**

NOTES

Cleanliness of facilities is always ranked as one of the highest criteria impacting overall user satisfaction. This project would enhance the ability to maintain a high level of cleanliness in the most efficient manner possible by utilizing mobile access throughout the builidng. Existing CPU tower will be removed. Tablets will still require peripherals (keyboard and monitor).

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Tax	30,500	0	0	0	0	0	0
TOTAL FUNDING	**30,500**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20057

Project Cost: $43,900

Project Name: **Digital Literacy Strategy Implementation – Phase 2 of 2**

Commission: Corporate Services

Department: ITS

Project Mgr: Catherine Biss

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☑ 6 ☐ 7 ☐ 8 ☐

New Asset/Expansion

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

A multi-year plan to implement technology & learning opportunities that foster a digitally literate community. Phase 1, recommended by the Leveraging Technology Committee, created a Digital Media Lab (DML) at Angus Glen Library. Phase 2 will create DMLs at Markham Village and Cornell Libraries. Project supports the City's Digital Markham Strategy & MPL's Digital Literacy Strategy. Furthers MPL's strategic goal of digital inclusion through facilitation of greater citizen participation in the digital economy and the development of digital literacy skills. Since expanding the DML at Aaniin in 2018, there has been a 417% increase in usage over the previous year. 1,666 individual sessions and 2730 instructional hours in Q1 2019. There is a 27% increase over last year in related program attendance. 67% of users gained confidence using the equipment (compared to 31% Ontario Library average), 57% who tried the equipment intend to keep using it, and 65% said this tech helped further their educational goals. Additionally, 93% felt more knowledgeable about using digital resources, 89% intend to apply what they learned and 87% felt more confident when using digital resources. With this expansion to Markham Village and Cornell branches, there will be Digital Literacy services at each of the large branches, providing service to all the geographic catchments of the city.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	43,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	43,100	0
HST Impact:	759	0
Total Project Cost:	**43,900**	**0**

NOTES

Cost is based on Angus Glen DML, extending this service to Markham Village and Cornell. Hardware -$26.9K includes 4 professional iMacs equipped with digital media software (sound, video and photo editing capabilities, 3D scanning, modelling software, etc.) and peripherals for both in-branch and customer use. Annual Operating Impact: $12K for maintenance & support, $5K for software. Phase 1 is still in process. ITS is still procuring all of the equipment.

SOURCE(S) OF FUNDING ($)		Components					Future
Funding Type	Budget	Hardware	Software	Maintenance		TOTAL	Phases
Operating Funded Life Cycle	43,900	26,900	5,000	12,000	0	43,900	0
TOTAL FUNDING	**43,900**					**43,900**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$17,000	$0	$17,000

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	
Amount Incl HST	
Year in the study	

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20058

Project Cost: $25,600

Project Name: **Library Online Registration & Mobile Printing**

New Asset/Expansion

Commission: Corporate Services

Useful Life: 5 Pre Approval: ☐

Department: ITS

Category: Annual

Project Mgr: Catherine Biss

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project supports MPL's Digital Inclusion Strategy as well as the City's Digital Markham Strategy. The eCARD solution facilitates self-registration for library cards online, remotely or onsite, which provides customers with direct remote access to MPL's digital collections. It enables customers to interact with the Library virtually. Innovative technologies facilitate more responsive and efficient library services, providing equity to community members experiencing barriers to access and generally improving access to Library content. Mobile printing will allow customers to send print jobs from home to the Library. It will also allow customers who are within the branches to send print jobs directly from their mobile devices to the Library's printers. The mobile printing services is a user-friendly, cloud printing solution with integrated electronic payment. The service supports any Wi-Fi based printing request. All connections are SSL encrypted and payments are secured. This mobile printing technology works with existing printer infrastructure so no extra cost are needed for deployment. The anticipated increased usage of printers can be accommodated as the printers are not used at full capacity currently as confirmed by ITS.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	25,110	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	25,110	0
HST Impact:	442	0
Total Project Cost:	**25,600**	**0**

NOTES

Costs in CAD (converted at f/x 1.35 for fees obtained in USD):
1) $10,800: Online Registration one-time set up fee.
2) $6,750: Online Registration annual subscription fee (includes software cloud hosting/access, address verifications, maintenance & support).
3) $7,560: Mobile Printing annual subscription fee (includes installation, training materials, support, ongoing updates, integrated electronic payment set up). Cost to be recovered via the expected increase in print volume.

SOURCE(S) OF FUNDING ($)		Components					Future
Funding Type	Budget	Online Reg fee	Annual fee	Mobile printing fee	HST	TOTAL	Phases
Tax	25,600	10,800	6,750	7,560	490	25,600	0
TOTAL FUNDING	**25,600**					**25,600**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$14,310	$7,560	$6,750

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	
Amount Incl HST	
Year in the study	

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20059

Project Cost: $26,000

Project Name: **ITS-Backflow Prevention Program (Software Enhancements)**

Repair/Replace

Commission: Corporate Services

Useful Life: 10 Pre Approval: ☐

Department: ITS

Category: Major

Project Mgr: Rebecca Fei

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to request funding to improve existing features and to add new features to the following sytems: 1. Online Submission System and the Backflow Prevention Maintenance System (BPMS).

BUILDING MARKHAM'S FUTURE TOGETHER:

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	25,580	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	25,580	0
HST Impact:	450	0
Total Project Cost:	**26,000**	**0**

NOTES

See attached for further support for this request. There is no incremental impact to the operating budget.

SOURCE(S) OF FUNDING ($)		Components				Future
Funding Type	Budget	Online Submission	BPMS		TOTAL	Phases
Waterworks	26,000	16,000	10,000	0	26,000	0
TOTAL FUNDING	**26,000**				**26,000**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20061

Project Cost: $3,273,900

Project Name: **ITS Life Cycle Asset Replacement**

Repair/Replace

Commission: Corporate Services

Useful Life: 6 Pre Approval: ☐

Department: ITS

Category: Major

Project Mgr: Sugun Rao

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace IT hardware and software assets that are due for replacement based on condition assessment. Some of the assets have been discontinued by Manufacturer and replacement is required in order to avoid any service interruptions.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	3,119,000	0
Internal Charges:	100,000	0
External Consulting:	0	0
Sub Total:	3,219,000	0
HST Impact:	54,894	0
Total Project Cost:	**3,273,900**	**0**

NOTES

These items for replacement in this request includes assets:
1. City wide Network switches, Wireless Access Points, UPS
2. Primary and secondary main storage disk system, Firewall
3. Digital Markham additional implementation
4. Library Bibilotheca hardware (3M) and Media Lab equipment
5. Multifunction and Single Function printers
6. Smartphones Replacement, 7. Portal Hardware Maintenance Renewal, 8. Internal Charges - Staff for Project Resources
Note: See Supporting Document for details.

SOURCE(S) OF FUNDING ($)		Components				
Funding Type	Budget	Network	Data Centre		TOTAL	Future Phases
Building Fees	168,530	0	0	0	0	0
Development Fees	224,710	0	0	0	0	0
Operating Funded Life Cycle	2,712,130	0	0	0	0	0
Waterworks	168,530	0	0	0	0	0
TOTAL FUNDING	**3,273,900**				**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$60,000	$0	$60,000

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	3,872,100
Amount Incl HST	2,712,100
Year in the study	

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

DETAILS FOR CAPITAL PROJECT IT LIFECYCLE ASSET REPLACEMENT

	Item	Quantity	Total Costs	Source of Funding: Life Cycle	Water Works	Building	Engineering	Planning
	2020 IT Lifecycle Asset replacement							
1	**City Wide Network Switch, Wireless Access Point and Closet UPS Replacement** *Replacement of 7+ year old City-wide 94 Network switch, 113 Wireless Access point and 72 Closet UPS. The hardware is listed as end of life by Manufacturer with no future security patches nor any updates. In addition, old switches do not allow us to implement enhanced security control, such as access control list (ACL), that was identified as high Cyber Security Risk. The Total cost includes hardware, required licenses and Professional services for Implementation.*	Network Switch (94/179) Wireless Access point (113/151) Closet UPS (72/79)	$822,000	$657,600	$49,320	$49,320	$32,880	$32,880
2	**Storage Disk system with Backup software and Firewall Replacement:** *6+ year old 2 x Disk Storage System with backup software and 2 x Tier one Firewall equipment replacement at Primary and Backup data Centre. The hardware is listed as end of life by Manufacturer, and further extension of the warranty and maintenance past the lifecycle will incur significant cost. The hardware cannot be covered under 3rd party maintenance and support. Total cost includes software, user licenses and Implementation.*	Disk Storage System (2/4) Tier One Firewall (2/4)	$860,000	$688,000	$51,600	$51,600	$34,400	$34,400
3	**ITS Strategic Plan Implementation**		$300,000	$240,000	$18,000	$18,000	$12,000	$12,000
4	**Library Bibliotheca (3M) and Digital Media Lab Hardware** *Replacement of 8+ year old Library 3M equipment - (3 of 4 Selfcheck, 3 of 3 Tracking Pad and 1 of 1 book sorter equipment at Thornhill, 2 of 2 Selfcheck at Unionville, 1 of 1 Selfcheck at Thornhill Village Libraries) and 6+ year old Media Lab equipment at Thornhill*	Selfcheck (6) Tracking Pad (3) book sorter (1) Media Lab (1)	$457,000	$457,000	$0	$0	$0	$0
5	**Replacement of Printer - Phase 2/3, Plotter and Folding & Stuffing Machine in Mailroom** *Replacement of City Wide 6+ year old remaining 56 multifunction devices (MFD), 1 Sign Shop Plotter and 1 Mailroom Folding and Stuffing Machine,. The contracts and maintenance on these equipment will expire in 2020. Some of the MFD units have started breaking down on a frequent basis impacting business services, and need replacement.*	MFD (56/105) Folding & Stuffing (1/1) Plotter (1/4)	$450,000	$360,000	$27,000	$27,000	$18,000	$18,000
6	**City Wide Smartphone Replacement** *Lifecycle replacement of 150 corporate smartphones that are older than two and half years. Some of these devices have shown significantly degrading battery life, other wear and tear, needing replacement.*	Smartphone (150/399)	$30,000	$24,000	$1,800	$1,800	$1,200	$1,200
7	**Portal Hardware Maintenance Renewal** *Based on lifecycle, portal hardware was due for replacement in 2019. However, in discussion with the Region of York, the City would like to extend the life of the hardware until end of 2021. During this period, we plan to also establish a go forward strategy on the overall portal architecture and hosting service. In the meantime, maintenance and support service for the current hardware, which is due for renewal, needs to be extended and the requested budget is to pay for this service until end of 2021 to ensure service continuity.*	1	$ 200,000	$160,000	$12,000	$12,000	$8,000	$8,000
8	**Internal Charges - 1 Staff for Project Resources** *This resource is required in order to implement IT Capital Projects*		$ 100,000	80,000	6,000	6,000	4,000	4,000
	Total		**$3,219,000**	**$2,666,600**	**$165,720**	**$165,720**	**$110,480**	**$110,480**
	HST Impact	1.76%	$54,894	$45,524	$2,811	$2,811	$1,874	$1,874
	Total with HST Impact		**$3,273,894**	**$2,712,124**	**$168,531**	**$168,531**	**$112,354**	**$112,354**

2020 PROJECT FUNDING REQUEST FORM

Number: 20062

Project Cost: $129,200

Project Name: **Bill 108 - Community Benefits Charge By-law**

Commission: Corporate Services

Department: Finance

Project Mgr: Kevin Ross

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Other(specify in Notes)

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To prepare a study detailing the calculation of the Community Benefits Charge for soft services, cash-in-lieu and parkland dedication. Also includes the preparation of the Community Benefits By-law and Strategy.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	127,000	0
Sub Total:	127,000	0
HST Impact:	2,235	0
Total Project Cost:	**129,200**	**0**

NOTES

Bill 108 has received Royal Assent and municipalities will be required to have a Community Benefits By-law in place by January 1, 2020.
Legal costs - $25,400
Consulting costs - $103,800

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	116,280	0	0	0	0	0	0
Non-DC Growth	12,920	0	0	0	0	0	0
TOTAL FUNDING	**129,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20063

Project Cost: $928,800

Project Name: **Internal Project Management**

Commission: Corporate Services

Department: Finance

Project Mgr: Kevin Ross/Phoebe Fu

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Other(specify in Notes)

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Project to assign internal resource costs associated with the administration and purchasing management aspects of Capital Growth (Development Charge) projects. This project represents 90% of the total costs and the remaining 10% will be funded from the Operating Budget.

BUILDING MARKHAM'S FUTURE TOGETHER:

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	928,800	0
External Consulting:	0	0
Sub Total:	928,800	0
HST Impact:	0	0
Total Project Cost:	**928,800**	**0**

NOTES

Requirement validation: Internal resource costs of 10 staff associated with capital growth (development charges) projects.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	928,800	0	0	0	0	0	0
TOTAL FUNDING	**928,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20064

Project Cost: $337,800

Project Name: **Facility Energy Management Program**

New Asset/Expansion

Commission: Corporate Services

Useful Life: 15 Pre Approval: ☐

Department: Sustainability Office

Category: Major

Project Mgr: Amanda Martin

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This is an annual project requesting funding to support Markham's citywide award-winning energy-efficiency and net-zero improvements with respect to facility retrofits, awareness & training programs, feasibility studies, technical & operational support, and strategic automation system planning, standardization, and optimization. The improvements planned for 2020 are estimated to save $165,000 annually in utility & billing costs starting in 2021. Additionally, there will be one-time utility incentives of $39,000 (at risk) in 2020 [$337,800 -$39,000)/ $165,000], resulting in a payback of 1.8 years.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	160,000	0
Internal Charges:	175,000	0
External Consulting:	0	0
Sub Total:	335,000	0
HST Impact:	2,816	0
Total Project Cost:	**337,800**	**0**

NOTES

E3: Estimated annual savings of $165k starting 2021: $103k through metering & bill analysis, awareness programs, operational and building automation improvements; and $62k through Citywide energy-efficient Lifecycle upgrades and special projects (lighting, HVAC, pumps). Internal staff positions are more cost-effective and increase service quality relative to outsourcing, as these positions are able to continuously improve operational excellence, develop best practices and complete other projects/services. Funding source: Markham Energy Conservation Office (MECO).

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Internal Charge	Components: Energy Conservation Projects			TOTAL	Future Phases
Other Internal	337,800	175,000	162,800	0	0	337,800	0
TOTAL FUNDING	**337,800**					**337,800**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	-$165,000	$0	-$165,000

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20065

Project Cost: $337,800

Project Name: **8100 Warden Facility Repair and/or Replacement Projects**

Repair/Replace

Commission: Corporate Services

Useful Life: Pre Approval: ☐

Department: Asset Management

Project Mgr: Jason Ramsaran

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain the 8100 Warden Facility in a state of good repair and in alignment to the Asset Management Plan/ Policy. Items for repair and/or replacement in the Budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets and life cycle. Budget request is subject to change, based on condition assessment in previous year.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	331,981	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	331,981	0
HST Impact:	5,843	0
Total Project Cost:	**337,800**	**0**

NOTES

$127,500 Elevator (1985 year installed) and associated items
$77,500 HVAC coils (1982 year installed) and several exhaust fans
$30,800 Painting and garage overhead doors (2000 year installed)
$102,000 Garbage area/room/collection systems
Elevator work will require up to 3 years.
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Elevator	HVAC, ventilation	Painting	Garbage Room	TOTAL	Future Phases
Operating Funded Life Cycle	337,800	127,500	77,500	30,800	102,000	337,800	0
TOTAL FUNDING	**337,800**					**337,800**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	337,800
Amount Incl HST	337,800
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20066

Project Cost: $137,700

Project Name: **Accessibility Retrofit Program**

Repair/Replace

Commission: Corporate Services

Useful Life: 10 Pre Approval: ☐

Department: Asset Management

Project Mgr: Colby Brygidyr

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Ongoing program to comply with the City's accessibility and AODA guidelines. Items for repair or/and replacement in the budget year were determined in 2019, as part of the annual condition assessment in preparation for 2020 budget.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	125,491	0
Internal Charges:	10,000	0
External Consulting:	0	0
Sub Total:	135,491	0
HST Impact:	2,209	0
Total Project Cost:	**137,700**	**0**

NOTES

$87,700 Misc. Upgrades (signage, door operator, ramp)
$40,000 Morgan Pool & Milliken Mills Change Rooms
$10,000 Internal Chargeback
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Accessibility	Chargeback			TOTAL	Future Phases
Operating Funded Life Cycle	137,700	127,700	10,000	0	0	137,700	0
TOTAL FUNDING	**137,700**					**137,700**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,903,300

Amount Incl HST 137,700

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

SAM LC program for 2020 is $1.778M of $1.903M - Corp Security $701.7K, Parking Lot light $490.6K, Backflow Prevention $20.4K, Bldg. Condition Audit $144K, Bldg Envelope $56.1K, Accessibility $137.7K, Designated Substances $69.4K & PVC Salt Dome Demolition supplement $158K.

2020 PROJECT FUNDING REQUEST FORM

Number: 20067

Project Cost: $144,000

Project Name: **Building Condition Audit - Full Time Staff**

Repair/Replace

Commission: Corporate Services

Useful Life: 1 Pre Approval: ☐

Department: Asset Management

Category: Annual

Project Mgr: Atiq Rahman

Cost Validation:

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation:

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This is a recovery for a Facility Engineering position. The building audit program aims to audit approximately 200K sq. ft. of City's 2M sq. ft. facility portfolio every year, with plan to audit each facility once every 10 years. These audits are required to create/update life cycle inventories and replacement plans for each building/facility, to keep these buildings in a state of good repair and in alignment to City's Asset Management Plan/Policy. Approximately 563,000 sq. ft. were audited in last 3 years. Staff identified that using an internal staff position is more cost effective than outsourcing the same work as this position is able to complete other projects and services as needed.

BUILDING MARKHAM'S FUTURE TOGETHER:

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	144,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	144,000	0
HST Impact:	0	0
Total Project Cost:	**144,000**	**0**

NOTES

$144,000 Salary recovery for one Senior Facility Engineer. Amount requested is consistent with 2019 Life Cycle Reserve Study.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Salary Recovery				TOTAL	Future Phases
Operating Funded Life Cycle	144,000	144,000	0	0	0	144,000	0
TOTAL FUNDING	**144,000**					**144,000**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,903,300
Amount Incl HST	144,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

SAM LC program for 2020 is $1.778M of $1.903M - Corp Security $701.7K, Parking Lot light $490.6K, Backflow Prevention $20.4K, Bldg. Condition Audit $144K, Bldg Envelope $56.1K, Accessibility $137.7K, Designated Substances $69.4K & PVC Salt Dome Demolition supplement $158K.

2020 PROJECT FUNDING REQUEST FORM

Number: 20068

Project Cost: $56,100

Project Name: **Building Envelope/Structural Review**

Commission: Corporate Services

Department: Asset Management

Project Mgr: Michael Ryan

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 10 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project budget is requested once every two years to review the overall building envelope (roofs, exterior cladding, structure) to ensure the safe condition of the buildings. The review will be performed by a Building Science group/company for an estimated 15 to 20 buildings every two years. This program is a comprehensive review of the building "envelope" / exterior components.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	55,130	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	55,130	0
HST Impact:	970	0
Total Project Cost:	**56,100**	**0**

NOTES

$56,100 Building Envelope/Structural Review Tentative list of Buildings for 2020 (will be updated/confirmed during tender phase) Armadale C.C, Mkh Rugby Building, Milliken Mills Soccer Clubhouse, Pingle House, Warden House, Fire Station 92, Fire Station 96, Fairty House, Pomona Tennis Clubhouse, Princess Street Park Shop, Milne Park Shop, Boxgrove C.C, Thornlea Pool, Main Street Mkh Public Washroom and Storage, St. Roberts Soccer Dome. Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	Review				TOTAL	Future Phases
Operating Funded Life Cycle	56,100	56,100	0	0	0	56,100	0
TOTAL FUNDING	**56,100**					**56,100**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,903,300

Amount Incl HST 56,100

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

SAM LC program for 2020 is $1.778M of $1.903M - Corp Security $701.7K, Parking Lot light $490.6K, Backflow Prevention $20.4K, Bldg. Condition Audit $144K, Bldg Envelope $56.1K, Accessibility $137.7K, Designated Substances $69.4K & PVC Salt Dome Demolition supplement $158K.

2020 PROJECT FUNDING REQUEST FORM

Number: 20069

Project Cost: $345,000

Project Name: **Civic Centre Repair and/or Replacement Projects**

Repair/Replace

Commission: Corporate Services

Useful Life: 5 Pre Approval: ☐

Department: Asset Management

Project Mgr: Jason Ramsaran

Category: Major

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Published guidelines

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain the Civic Centre Facility in a state of good repair and in alignment to the Asset Management Plan/Policy. Items for replacement in the Budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets, life cycle database and trending. Budget request is subject to change, based on condition assessment in previous year.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	339,033	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	339,033	0
HST Impact:	5,967	0
Total Project Cost:	**345,000**	**0**

NOTES

$83,000 Building envelope work (overhead garage door (2004), leak investigation, painting)
$92,800 Amphitheatre concrete (1989), chulking and resealing, railing painting.
$108,000 Replacement of 12 exterior wayfinding signs, Removal of feature sign visible from Hwy-7 & Town C. Blvd
$61,200 Mechanical (plumbing, ventilation, hoist)
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Bldg envelope work	Site features	Exterior signage	Mechanical	TOTAL	Future Phases
Operating Funded Life Cycle	345,000	83,000	92,800	108,000	61,200	345,000	0
TOTAL FUNDING	**345,000**					**345,000**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 440,000
Amount Incl HST 345,000
Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

LC has $440,000 including $50,000 for interlock and paver, and $50,000 for exterior signage at Hwy 7 and Town Centre Blvd. This sign will be removed for $5000.

2020 PROJECT FUNDING REQUEST FORM

Number: 20070

Project Cost: $701,700

Project Name: **Corporate Security Operations & System Replacements**

Repair/Replace

Commission: Corporate Services

Useful Life: 7 Pre Approval: ☐

Department: Asset Management

Project Mgr: Eric Lizotte

Category: Major

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Funding required to complete security systems and /or component repair or/and replacements at various City Facilities, to continue our requirement under OHSA and Bill 168 - workplace violence and harassment. Project budget includes funding for Manager of Corporate Security. Items in the budget year are based on security consultant and Auditor General recommendations. Amount requested is consistent with 2019 Life Cycle Reserve Study update.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	434,061	0
Internal Charges:	260,000	0
External Consulting:	0	0
Sub Total:	694,061	0
HST Impact:	7,639	0
Total Project Cost:	**701,700**	**0**

NOTES

$151,000 Civic Centre & 8100 Warden Closed Circuit Television (CCTV) & Access Control. Recycling Depots & Markham Village Library Cenotaph CCTV
$86,700 Fire Stations Digital Video Recorder (DVR), Museum & Operations facilities electronic keybox/audit
$102,000 Recreation facilities security systems (1990 to 2010)
$102,000 Citywide security, ID cards, consultant, software licences, on-demand items
$260,000 Internal chargeback.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Civic, 8100, Rcycl Depot, MVL	Rec Fac, Fire Stn, Museum, 555 Miller	Training, Consultant, On demand, ID card, license	Int'l Chargeback	TOTAL	Future Phases
Operating Funded Life Cycle	701,700	151,000	188,700	102,000	260,000	701,700	0
TOTAL FUNDING	**701,700**					**701,700**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,903,300
Amount Incl HST	701,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

SAM LC program for 2020 is $1.778M of $1.903M - Corp Security $701.7K, Parking Lot light $490.6K, Backflow Prevention $20.4K, Bldg. Condition Audit $144K, Bldg Envelope $56.1K, Accessibility $137.7K, Designated Substances $69.4K & PVC Salt Dome Demolition supplement $158K.

Corporate Security Operations & System Upgrades													Lifecycle	Budget	Inflation	0.02
		Major								<------Non Inflated, HST Inclusive----->				<-Inflated, HST included-->		
												A	B	E=A*Inflation	F=B*Infl^2	G=C*Infl^3
Facility	**Responsible Name**	**Operating/Capital**	**Classification**	**Class Type**	**Description**	**Location**	**Attributes**	**Year Installed**	**Cycle Factor**	**Year Due**	**Replacement Value**	**2020**	**2021**	**2010 Budget Entry**	**2021 Budget Entry**	
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Civic Centre	Civic Centre CCTV replacement & C-Cure to S2 Conversion	1920	100	2020	60,000	60,000				
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	8100 Warden	Access contorl, CCTV and Intrustion System Upgrade	2018	1	2020	50,000	50,000				
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Recycling Depots	Recycling Depot - CCTV install / Upgrade X4 locations			2020	30,000	30,000				
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Markham Village Librarys	Markham Village Library - CCTV for Cenotaph			2020	8,000	8,000		151,000		
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Fire Stations	DVR Replacement with NVR at FS91,92,94 &95	1920	100	2020	35,000	35,000				
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Museum	Electronic Lockbox Control/Audit			2020	25,000	25,000				
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Operations/555 Miller	Electronic Key Box / audit			2020	25,000	25,000		86,700		
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Recreation Facilities	Recreation Facilities security			2020	100,000	100,000		102,000		
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Citywide	Staff ID /Access Card /Badge Replacement			2020	5,000	5,000				
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Citywide	Consultant			2020	30,000	30,000				
	OOT		Program	Program	Corporate Security Operations and System Upgrades	Citywide	Internal Recovery			2020	130,000					
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Citywide	Training			2020	10,000	10,000				

Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Citywide	Software license			2020	5,000	5,000					
Asset Management	OOT		Program	Program	Corporate Security Operations and System Upgrades	Citywdemande	On-Demand Items			2020	50,000	50,000		102,000			
										TOTAL =	563,000	433,000	0	0			
										Cost/Quote (Inflated, HST Excluded) = SUM(C,D) /1.0176					434,061	0	
													Internal Chargeback		260,000	-	
													External Consulting		-	-	
													Contingency		-	-	
													Subtotal		694,061	0	
													HST Impact=		7,639	0	
													Total		701,700	0	
															701,700	**0**	

2020 PROJECT FUNDING REQUEST FORM

Number: 20071

Project Cost: $69,400

Project Name: **Designated Substances Management**

Commission: Corporate Services

Department: Asset Management

Project Mgr: Khwaja Waker

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 2 Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project includes review of identified Asbestos Containing Materials (ACMs) at City owned facilities and update existing Asbestos Management Plans. This program will also include management (including testing, analysis, planning and abatement) of any other designated substances at City facilities and training for facility staff on Asbestos management. Ontario Regulation 278/05 requires all building owners to have ongoing Asbestos Management programs at facilities where Asbestos Containing Materials (ACMs) are identified.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	68,200	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	68,200	0
HST Impact:	1,200	0
Total Project Cost:	**69,400**	**0**

NOTES

$69,400 Designated Substance Management to maintain a healthy and safe environment within City owned facilities.
This is a bi-annual program.
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Designated Substances Management				TOTAL	Future Phases
Operating Funded Life Cycle	69,400	69,400	0	0	0	69,400	0
TOTAL FUNDING	**69,400**					**69,400**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,903,300

Amount Incl HST 69,400

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

SAM LC program for 2020 is $1.778M of $1.903M - Corp Security $701.7K, Parking Lot light $490.6K, Backflow Prevention $20.4K, Bldg. Condition Audit $144K, Bldg Envelope $56.1K, Accessibility $137.7K, Designated Substances $69.4K & PVC Salt Dome Demolition supplement $158K.

2020 PROJECT FUNDING REQUEST FORM

Number: 20072

Project Cost: $233,200

Project Name: **Fire Facilities Repair and/or Replacement Projects**

Repair/Replace

Commission: Corporate Services

Useful Life: 15 Pre Approval: ☐

Department: Asset Management

Category: Minor

Project Mgr: Jason Vasilaki

Cost Validation: Published guidelines

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain the fire facilities in a state of good repair and in alignment to the Asset Management Plan/Policy. Items for repairs or/and replacement in the Budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets, life cycle database and trending. Budget request is subject to change, based on condition assessment in previous year.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	229,166	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	229,166	0
HST Impact:	4,033	0
Total Project Cost:	**233,200**	**0**

NOTES

$82,190 FS 91, 92, 93, 94 Furnaces (2000), fire alarms, painting, ceiling tiles
$56,150 FS 95 Furnace (2000), cabinets/countertops, washroom plumbing, painting, ceiling, flooring, blinds, lighting fixtures
$74,460 FS 96,97,98,99 - Lighting fixtures, landscaping, generator ($60,000; 1984 year installed)
$20,400 Furniture & equipment replacements where needed
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: FS91,92,93,94	FS 95	FS96,97,98,99	Furniture, Equipments	TOTAL	Future Phases
Operating Funded Life Cycle	233,200	82,190	56,150	74,460	20,400	233,200	0
TOTAL FUNDING	**233,200**					**233,200**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	354,600
Amount Incl HST	233,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

LC includes $233,200 for facility repair/replacement and $121,400 for signage.

2020 PROJECT FUNDING REQUEST FORM

Number: 20073

Project Cost: $121,400

Project Name: **Fire Station Signs - Phase 2 of 2**

Repair/Replace

Commission: Corporate Services

Useful Life: 15 Pre Approval: ☐

Department: Asset Management

Project Mgr: Sameem Shah

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Following the December 2013 ice storm, the Emergency Planning Committee recommended the installation of LED exterior signage at Markham Fire Stations as a way to inform the public in event of emergencies. Phase-I included installation of signs at Station 91, 93, 94 & 96. This project will complete insallation of signs at the remaining sites (Fire Station 92, 95, 98 and 99).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	119,282	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	119,282	0
HST Impact:	2,099	0
Total Project Cost:	**121,400**	**0**

NOTES

$114,411 Firm quote from vendor for lectronic signs at 4 Fire Stations
$6,971 Media players to operate signs
Vendor will hold 2019 price in 2020.
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: FS Signs	Components: Media player			TOTAL	Future Phases
Operating Funded Life Cycle	121,400	114,429	6,971	0	0	121,400	0
TOTAL FUNDING	**121,400**					**121,400**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	354,600
Amount Incl HST	121,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

LC includes $233,200 for facility repair/replacement and $121,400 for signage.

2020 PROJECT FUNDING REQUEST FORM

Number: 20074

Project Cost: $127,700

Project Name: **Library Facilities Repair and/or Replacement Projects**

Repair/Replace

Commission: Corporate Services

Useful Life: 10 Pre Approval: ☐

Department: Asset Management

Project Mgr: Jason Vasilaki

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain the library facilities in a state of good repair and in alignment to the Asset Management Plan/Policy. Items for repair and/or replacement in the Budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets, life cycle database and trending. Budget request is subject to change, based on condition assessment in previous year.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	125,491	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	125,491	0
HST Impact:	2,209	0
Total Project Cost:	**127,700**	**0**

NOTES

$40,000 Markham Village Library- ceiling tiles, painting, ducts, rusted steel support ramp at entrance (2006)
$46,900 Thornhill Village Library -west entrance access ramp (1996), drywalls, picket fence, doors, shed
$40,800 Unionville Library - dropbox, washroom cabinet/countertops, plumbing, entrance doors, painting
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Markham Village	Components: Thornhill Village	Components: Unionville		TOTAL	Future Phases
Operating Funded Life Cycle	127,700	40,000	46,900	40,800	0	127,700	0
TOTAL FUNDING	**127,700**					**127,700**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	127,700
Amount Incl HST	127,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20075

Project Cost: $20,400

Project Name: **Municipal Building Backflow Prevention Testing**

Repair/Replace

Commission: Corporate Services

Useful Life: 1 Pre Approval: ☐

Department: Asset Management

Project Mgr: Jason Vasilaki

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Testing of all backflow devices within Markham facilities must be completed, annually as outlined in By-law 2007-142. Budget request is subject to change based on requirements identified in the previous year.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	20,057	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	20,057	0
HST Impact:	353	0
Total Project Cost:	**20,400**	**0**

NOTES

$20,400 Testing all backflow devices installed within Markham facilities
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Testing				TOTAL	Future Phases
Operating Funded Life Cycle	20,400	20,400	0	0	0	20,400	0
TOTAL FUNDING	**20,400**					**20,400**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,903,300
Amount Incl HST	20,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

SAM LC program for 2020 is $1.778M of $1.903M - Corp Security $701.7K, Parking Lot light $490.6K, Backflow Prevention $20.4K, Bldg. Condition Audit $144K, Bldg Envelope $56.1K, Accessibility $137.7K, Designated Substances $69.4K & PVC Salt Dome Demolition supplement $158K.

2020 PROJECT FUNDING REQUEST FORM

Number: 20076

Project Cost: $764,500

Project Name: **Operations Facilities Repair and/or Replacement Projects**

Repair/Replace

Commission: Corporate Services

Useful Life: 15 Pre Approval: ☐

Department: Asset Management

Category: Major

Project Mgr: Colby Brygidyr

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain the Operations Facilities in a state of good repair and in alignment to the Asset Management Plan/Policy. Items for repair and/or replacement in the Budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets, life cycle database and trending. Budget request is subject to change, based on condition assessment in previous year.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	702,142	0
Internal Charges:	50,000	0
External Consulting:	0	0
Sub Total:	752,142	0
HST Impact:	12,358	0
Total Project Cost:	**764,500**	**0**

NOTES

$188,900 Annswell Park Well Shed, Berczy Park - Maintenance Bldg, Central Parks Shop, Greenhouses - interlocking/concrete, cabinet/countertops, lighting fixtures, painting, floors, walls, OH doors, furnace, sensors, chemical storge, ventilation, control, $63,600 Millenium, Milliken Mills & Mintleaf park washrooms, Milne Park shop & ticket booth (painting) - Misc. items $86,500 Signshop, Toogood Pond Pav., Vic. Sq. Park washrooms - Misc. $375,500 555 Miller buildings, West Parkshop - Misc. items $50,000 Internal Chargeback.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	Answell, Berczy, central parkshop, greenhouses	Millenium, Milliken, Minkleaf W/R,Milne parkshop	other sites	Int. Chargeback	TOTAL	Future Phases
Operating Funded Life Cycle	764,500	188,900	63,600	462,000	50,000	764,500	0
TOTAL FUNDING	**764,500**					**764,500**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 764,500

Amount Incl HST 764,500

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Amount requested is consistent with 2019 Life Cycle Reserve Study update.

Operations Facilities Improvement														Lifecycle	Budget	Inflation	0.02
		Major										<------Non Inflated, HST Inclusive----->			<-Inflated, HST includ		203
													A	B	E=A*Inflatio	F=B*Infl^2	
Facility	Responsible Name	Operating/Capital	Classification	Class Type	Description	Location	Attributes	Year Installed	Cycle Factor	Year Due	Replacement Value	2020	2021	2020 Budget Entry	2021 Budget Entry	
Annswell Park Well Shed	OOT		Civil	Site Features	Interlocking Brick			1950	70	2020	9000	9000				
Annswell Park Well Shed	OOT		Civil	Site Features	Fencing		Chain link with gate	2000	20	2020	1500					
Berczy Park - Maintenance Bldg	OOT		Architectural	Accessories	Washroom Accessories	Public Washroom	Mirror, millwork, toilet, towel dispenser, hand dryer,hand rail	2013	7	2020	8000	8000				
Berczy Park - Maintenance Bldg	OOT		Architectural	Accessories	Washroom Accessories	Staff Washroom	Mirror, millwork, toilet, towel dispenser, hand dryer,hand rail	2013	7	2020	4000	4000				
Berczy Park - Maintenance Bldg	OOT		Electrical	Fixtures	Lighting	Exterior	Pot Lights - Roof Soffit	2013	7	2020	4000	4000				
Berczy Park - Maintenance Bldg	OOT		Architectural	Painting	Walls	Staff Room	Concrete Block wall	2013	7	2020	2700	2700				
Berczy Park - Maintenance Bldg	OOT		Architectural	Walls	Paint	Public Washrooms	Concrete Block wall	2013	7	2020	2700	2700				
Berczy Park - Maintenance Bldg	OOT		Architectural	Ceiling	Drywall	Storage Garage	Painting	2013	7	2020	1800	1800				
Berczy Park - Maintenance Bldg	OOT		Architectural	Painting	Walls	Storage Garage	Concrete block wall	2013	7	2020	1800	1800				
Berczy Park - Maintenance Bldg	OOT		Electrical	Fixtures	Lighting	Exterior	Wall Packs	2013	7	2020	1600	1600				
Berczy Park - Maintenance Bldg	OOT		Architectural	Walls	Paint	Staff Washroom	Concrete Block wall	2013	7	2020	1350	1350				
Berczy Park - Maintenance Bldg	OOT		Architectural	Painting	Walls	Storage Garage	Drywall	2013	7	2020	1100	1100				
Berczy Park - Maintenance Bldg	OOT		Architectural	Painting	Walls	Storage Garage	Drywall	2013	7	2020	1100	1100				
Berczy Park - Maintenance Bldg	OOT		Architectural	Painting	Walls	Mechanical Room	Concrete Block wall	2013	7	2020	900	900				
Berczy Park - Maintenance Bldg	OOT		Architectural	Painting	Walls	Storage Garage - Office		2013	7	2020	400	400				
Berczy Park - Maintenance Bldg	OOT		Security	Building Equipment	Security Systems	Interior and Exterior		2015	5	2020	2000	2000				
Central Parks Shop	OOT		Building Envelope	Doors	Overhead Door	North and South Workshops	Automatic. 2 in North Workshop and 4 in South Workshop	1995	25	2020	32000	32000				
Central Parks Shop	OOT		Furniture	General	Lockers	Locker Room	Metal - full height	1987	33	2020	14000	14000				
Central Parks Shop	OOT		Architectural	Millwork	Shelving	Workshop	Wood Shelves	1985	35	2020	8000	8000				
Central Parks Shop	OOT		Mechanical	Heating	Furnace	West of Lunchroom, above office	Ceiling suspended furnace	2005	15	2020	5000	5000				
Central Parks Shop	OOT		Electrical	Equipment	Generator	Shop	12 volt, 8.3 amp DC	2006	14	2020	7000	7000				
Central Parks Shop	OOT		Architectural	Millwork	Shelving	Garage	Wood Shelves	1985	35	2020	2000	2000				
Central Parks Shop	OOT		Life Safety	Fire System	Detector	Outside Electrical Room		1990	30	2020	2000	2000				
Central Parks Shop	OOT		Architectural	Millwork	Shelving	Chemical Storage	Metal Shelves	1985	35	2020	2500	2500				
Central Parks Shop	OOT		Security	Security System	Security System	Interior and Exterior		2015	5	2020	2000					
Central Parks Yard Storage Shed	OOT		Building Envelope	Walls	Metal Siding		Thin aluminum siding with no insulation	1985	35	2020	11000	11000				
Central Parks Yard Storage Shed	OOT		Building Structure	Posts	Wood		Wood Post Repairs	1985	35	2020	5000	5000				
Central Parks Yard Storage Shed	OOT		Electrical	Outlets			Exterrior outlets	1985	35	2020	2000	2000				
Greenhouse- Centre	OOT		Building Envelope	Walls	Plastic	Exterior Wall	Repairs to Plastic Covering	2012	8	2020	5000	5000				
Greenhouse- Centre	OOT		Mechanical	Heating	Furnace		Furnace	1999	21	2020	2000	2000				
Greenhouse- Centre	OOT		Building Envelope	Doors	Doors	Exterior	Galvanized steel frame with plastic sheet	1987	33	2020	1500	1500				
Greenhouse- Centre	OOT		Civil	Site Features	Walkway	Interior	Square pavement slabs	1987	33	2020	1500	1500				
Greenhouse- Centre	OOT		Electrical	Fixtures	Lighting		Incandescent Vapourtight pendant hung Jar light	2000	20	2020	850	850				
Greenhouse- Centre	OOT		Electrical	Equipment	Controller	North Wall	Residential grade programmable controller	2000	20	2020	300	300				
Greenhouse- Northeast	OOT		Building Envelope	Doors	Doors	Exterior	Galvanized steel frame with plastic sheet	1987	33	2020	1200	1200				
Greenhouse- Northeast	OOT		Building Envelope	Walls	Polycarbonate Sheets and cedar lintels	Vestibule walls and ceiling between Centre and Northeast greenhouse	Hard transparent sheets in vestibule locations	2008	12	2020	5000	5000				

Operations Facilities Improvement														Lifecycle	Budget	Inflation	0.02
		Major										<------Non Inflated, HST Inclusive----->			<-Inflated, HST includ->		
													A	B	E=A*Inflatio	F=B*Infl^2	
Facility	Responsible Name	Operating/Capital	Classification	Class Type	Description	Location	Attributes	Year Installed	Cycle Factor	Year Due	Replacement Value	2020	2021	2020 Budget Entry	2021 Budget Entry	
Greenhouse- Northwest	OOT		Building Envelope	Walls	Wroof	Exterior	Galv. steel frame with plastic sheet	2000	20	2020	5000	5000				
Greenhouse- Southcentre	OOT		Mechanical	Ventilation	Exhaust Fan	South Wall	Wall propeller exhaust fan	2004	16	2020	3000	3000				
Greenhouse- Southcentre	OOT		Mechanical	Heating	Furnace	Interior	Furnace	1995	25	2020	3000	3000				
Greenhouse- Southcentre	OOT		Building Envelope	Doors	Doors	Exterior	Galv. steel frame with plastic sheet	2000	20	2020	4000	4000				
Greenhouse- Southcentre	OOT		Building Envelope	Doors	Doors	Exterior	Galv. steel frame with plastic sheet	2000	20	2020	2000	2000				
Greenhouse- Southeast	OOT		Mechanical	Ventilation	Exhaust Fan	South wall	Wall propeller exhaust fan	1987	33	2020	3200	3200				
Greenhouse- Southeast	OOT		Mechanical	Ventilation	Dampers	North Wall	Dampers @ intake louvres	2005	15	2020	3000	3000				
Greenhouse- Southeast	OOT		Electrical	Equipment	Controller	North Wall	6 station, dual programmable water controller and poly drip piping system	2000	20	2020	2500	2500				
Greenhouse- Southeast	OOT		Mechanical	Controls	Thermostat	Interior	Heating & Ventilation Control	2000	20	2020	2500	2500				
Greenhouse- Southeast	OOT		Architectural	Flooring	Above Gravel	Interior	Poly flooring above Gravel base	1987	33	2020	2000	2000				
Greenhouse- Southeast	OOT		Electrical	Fixtures	Lighting	Interior	Incandescent Vapourtight pendant hung Jar light	2000	20	2020	600	600				
Greenhouse- Southwest	OOT		Building Envelope	Doors	Doors	Exterior	Galvanized steel frame with plastic	1987	33	2020	1500	1500				
Greenhouse- Southwest	OOT		Building Envelope	Walls	Polycarbonate Sheets and cedar lintels	Vestibule walls and ceiling between Centre and Northeast greenhouse	Hard transparent sheets in vestibule locations	2008	12	2020	2000	2000				
Greenhouse- Southwest	OOT		Electrical	Fixtures	Lighting	Interior	Incandescent Vapourtight pendant hung Jar light	2000	20	2020	600	600		188,900		
Millenium Park Washrooms	OOT		Mechanical	Plumbing	Washroom Fixtures		1 toilet and 1 sink in each washroom	2000	20	2020	4000	4000				
Millenium Park Washrooms	OOT		Mechanical	Building Equipment	Automatic Door Opener	Accessible Washroom	Electric Hinge type	2000	20	2020	3200	3200				
Millenium Park Washrooms	OOT		Mechanical	Accessories	Air Dryer	Bobrick	Hand dryers. 20A, 115V	2000	20	2020	3000	3000				
Millenium Park Washrooms	OOT		Architectural	Flooring	Concrete Sealing	Throughout		2000	20	2020	1500	1500				
Millenium Park Washrooms	OOT		Electrical	Fixtures	Lighting		2-2L-T8 in Utility Room. Sodium lights in washrooms	2000	20	2020	1500	1500				
Millenium Park Washrooms	OOT		Mechanical	Plumbing	Drinking Fountain	Exterior - North		2000	20	2020	1500	1500				
Millenium Park Washrooms	OOT		Electrical	Distribution	Timer	Utility Room	Timer for pole light	2000	20	2020	1000	1000				
Millenium Park Washrooms	OOT		Mechanical	Ventilation	Exhaust Fan			2000	20	2020	1000	1000				
Millenium Park Washrooms	OOT		Electrical	Bldg Equipment	Heater	Utility Room		2010	10	2020	2000	2000				
Milliken Mills Park Washrooms	OOT		Electrical	Distribution	Splitter	North Utility Room		1990	30	2020	4000	4000				
Milliken Mills Park Washrooms	OOT		Electrical	Distribution	Electrical Panel	North Utility Room	42 CCT	1990	30	2020	3000	3000				
Milliken Mills Park Washrooms	OOT		Electrical	Equipment	Control Panel	North Utility Room	Irrigation Pump Control	1990	30	2020	3000	3000				
Milliken Mills Park Washrooms	OOT		Electrical	Fixtures	Lighting	West Storage Room	T8 - 4'-2lamp fixtures	2007	13	2020	2000	2000				
Milne Park Ticket Booth	OOT		Architectural	Painting	Interior		Drywall painted, exterior trim, stained siding	2015	5	2020	2000	2000				
Milne Parks Shop	OOT		Architectural	Painting	Exterior	Shop	Metal walls and OH door jambs	2015	5	2020	5000	5000				
Milne Parks Shop	C		Civil	Site Features	Fencing	Work Yard Perimeter	Chain Link	1985	35	2020	4500					
Milne Parks Shop	OOT		Architectural	Walls	Vinyl	Lunchroom	Panels with wood battens	1995	25	2020	3500	3500				
Milne Parks Shop	OOT		Architectural	Accessories	Doors	Interior	Office, Storage Cabinet, DHW room door	2000	20	2020	2500	2500				

Operations Facilities Improvement														Lifecycle	Budget	Inflation	0.02
		Major										<------Non Inflated, HST Inclusive----->			<-Inflated, HST includ->		
													A	B	E=A*Inflatio	F=B*Infl^2	
Facility	Responsible Name	Operating/Capital	Classification	Class Type	Description	Location	Attributes	Year Installed	Cycle Factor	Year Due	Replacement Value	2020	2021		2020 Budget Entry	2021 Budget Entry	
Milne Parks Shop	OOT		Architectural	Walls	Drywall	Washrooms, Garage		2000	20	2020	2500	2500					
Milne Parks Shop	OOT		Architectural	Accessories	Doors	Interior	Double door between garage & lunchroom	2000	20	2020	1500	1500					
Milne Parks Shop	OOT		Electrical	Distribution	Meter Cabinet	Exterior - west wall	meter, cabinet, conduit	1995	25	2020	1500	1500					
Milne Parks Shop	OOT		Electrical	Fixtures	Lighting	Exterior	Sodium	1995	25	2020	1500	1500					
Milne Parks Shop	OOT		Architectural	Accessories	Doors	Interior	Washroom doors	2000	20	2020	1200	1200					
Mintleaf Park Washroom	OOT		Building Envelope	Doors	Doors		Exterior Painted Metal Door (3'x7')	1990	30	2020	2500	2500					
Mintleaf Park Washroom	OOT		Building Envelope	Walls	Stucco	Exterior Wall	3 inch concrete wall and 1.5 inch stucco	1990	30	2020	2000	2000					
Mintleaf Park Washroom	OOT		Mechanical	Plumbing	Washroom Fixtures		Reinstallation of Toilets	1990	30	2020	1700	1700					
Mintleaf Park Washroom	OOT		Architectural	Painting	Interior		Painting of Interior, exterior and doors	2004	16	2020	1600	1600					
Mintleaf Park Washroom	OOT		Mechanical	Plumbing	Washroom Fixtures		Urinal with automatice flash	1990	30	2020	1200	1200					
Mintleaf Park Washroom	OOT		Architectural	Flooring	Concrete Sealing			1990	30	2020	1000	1000					
Mintleaf Park Washroom	OOT		Mechanical	Plumbing	Washroom Fixtures		Sinks	1990	30	2020	500	500			63,600		
Princess Street Parks Shop	C		Civil	Site Features	Fencing		Chain Link - repair gate/posts	1995	25	2020	6000						
Sign Shop	OOT		Life Safety	Security System	Security System	Throughout	Entrance system, motion sensors, control panel, card readers	2005	15	2020	5000	5000					
Sign Shop	OOT		Mechanical	Shop Equipment	Air Compressor	Storage		1990	30	2020	2500	2500					
Sign Shop	OOT		Building Envelope	Walls	Window	Exterior wall	Prefinished metal	1988	32	2020	2100	2100					
Sign Shop	OOT		Electrical	Distribution	Transformer	Electrical Service Area	Transformer to 600volts for roof top A/C	1988	32	2020	1700	1700					
Sign Shop	OOT		Architectural	Flooring	Wood	Mezzanine	Plywood	1988	32	2020	1500	1500					
Sign Shop	OOT		Architectural	Millwork	Cabinets	Workshops	Wood storage cabinets	1988	32	2020	1500	1500					
Sign Shop	OOT		Civil	Site Features	Bollard	Exterior	Steel - concrete filled	1988	32	2020	1500	1500					
Sign Shop	OOT		Electrical	Distribution	Disconnect Switch	Electrical Service Area	Fused Switch - Industrial	1988	32	2020	1500	1500					
Sign Shop	OOT		Furniture	General	Lockers	Workshop	Metal units	1988	32	2020	1500	1500					
Sign Shop	OOT		Mechanical	Shop Equipment	Air Compressor	Office		1988	32	2020	1500	1500					
Sign Shop	OOT		Electrical	Fixtures	Lighting	Exterior Building	Wall mounted building light	1988	32	2020	1200	1200					
Sign Shop	OOT		Architectural	Millwork	Shelving	Workshop	Metal storage shelves - (for signs)	1988	32	2020	1000	1000					
Sign Shop	OOT		Mechanical	Shop Equipment	Grinder	Workshop		1988	32	2020	1000	1000					
Sign Shop	OOT		Mechanical	Shop Equipment	Drill Press	Office		1990	30	2020	1000	1000					
Sign Shop	OOT		Mechanical	Heating	Heater	South Shop	Unit Heater- Gas	2000	20	2020	1000	1000					

Operations Facilities Improvement														Lifecycle	Budget	Inflation	0.02
		Major									<------Non Inflated, HST Inclusive----->				<-Inflated, HST includ->		
												A	B		E=A*Inflatio	F=B*Infl^2	
Facility	Responsible Name	Operating/Capital	Classification	Class Type	Description	Location	Attributes	Year Installed	Cycle Factor	Year Due	Replacement Value	2020	2021		2020 Budget Entry	2021 Budget Entry	
Sign Shop	OOT		Electrical	Distribution	Splitter	Electrical Service Area	4'-0" splitter c/w termination bus & lugs	1988	32	2020	500	500					
Toogood Pond Pavillion	OOT		Building Envelope	Walls	Window		Painted wood awning	1983	37	2020	12000	12000					
Toogood Pond Pavillion	OOT		Architectural	Walls	Partitions	Washrooms	Solid phenolic units	2005	15	2020	8000	8000					
Toogood Pond Pavillion	OOT		Mechanical	Heating	Heater	Activity Room	Electric wall heaters	1990	30	2020	6000	6000					
Toogood Pond Pavillion	OOT		Building Envelope	Doors	Door	Washrooms	Replacment metal doors	1995	25	2020	5000	5000					
Toogood Pond Pavillion	OOT		Electrical	Fixtures	Lighting	Interior	T8-2L-4'	2000	20	2020	4000	4000					
Toogood Pond Pavillion	OOT		Electrical	Fixtures	Lighting	Exterior	MH	2000	20	2020	3000	3000					
Toogood Pond Pavillion	OOT		Civil	Site Features	Fencing	South and east exterior	Wood fence - 4'high 105' long	2000	20	2020	2100						
Victoria Square Park Washrooms	OOT		Building Envelope	Walls	Window		2'x3' each window	1990	30	2020	4800	4800					
Victoria Square Park Washrooms	OOT		Building Envelope	Doors	Door		Hollow metal doors with frame	1990	30	2020	2500	2500					
Victoria Square Park Washrooms	OOT		Electrical	Distribution	Disconnect Switch	Mens Washroom		1990	30	2020	2000	2000					
Victoria Square Park Washrooms	OOT		Electrical	Fixtures	Lighting		T8-2L-4' fixtures	1990	30	2020	2000	2000					
Victoria Square Park Washrooms	OOT		Mechanical	Fixtures	Plumbing		Male Washroom	1990	30	2020	4800	4800					
Victoria Square Park Washrooms	OOT		Mechanical	Fixtures	Plumbing		Female Washroom	1990	30	2020	4800	4800			86,500		
West Parks Shop	OOT		Architectural	Ceiling	Insulation	Garage	Faced with vapour retardant liner	1970	50	2020	10000	10000					
West Parks Shop	OOT		Architectural	Millwork	Wood		Painted Wood	1990	30	2020	5000	5000					
West Parks Shop	OOT		Building Envelope	Walls	Window	Exterior	Prefinished metal.	1973	47	2020	4000	4000					
West Parks Shop	OOT		Architectural	Walls	Drywall	Interior	Drywall partitions	2015	5	2020	5000	5000					
West Parks Shop	OOT		Building Envelope	Walls	Sealant	Exterior	Caulking	2012	8	2020	2000	2000					
West Parks Shop	OOT		Architectural	Accessories	Doors	Interior	Solid core wood door - painted	1970	50	2020	1500	1500					
Works Yard- Domes	OOT		Building Envelope	Doors	Door	South Dome #3	Sealed wood door with frame	1990	30	2020	2500	2500					
Works Yard- Main Building	OOT		Electrical	Fixtures	Lighting	Gas Pump Island	Pole mounted light c/w 12' pole	1980	40	2020	2200	2200					
Works Yard- Main Building	OOT		Mechanical	Pumps	Pump (Recirculation)	Boiler Room-Upper Unit	For Raypak radiation heater boiler	1995	25	2020	2500	2500					
Works Yard- Main Building	OOT		Mechanical	Ventilation	Exhaust Fan	Fire Bay - Mezzanine Level Compressor Room	Exhaust Fan 'EF-14'	1980	40	2020	3500	3500					
Works Yard- Main Building	OOT		Electrical	Distribution	Electrical Panel	Main office storage/electrical room	225A, 3PH, 4W, 120/208V, 42cct	1990	30	2020	4000	4000					
Works Yard- Main Building	OOT		Mechanical	HVAC	HVAC	Waterworks Roof	With volume box and t-stat for Waterworks Offices	2005	15	2020	12000	10000					
Works Yard- Main Building	OOT		Building Envelope	Doors	Overhead Door	Fire Bay-Garage	Steel with window inserts	1980	40	2020	40000	37000					
Works Yard- Main Building	OOT		Building Envelope	Doors	Overhead Door	Wash Bays	Plastic units	1980	40	2020	55000	50000					
Works Yard- Main Building	OOT		Mechanical	Heating	Radiation Heating	Office Areas	Perimeter Wallfin Radiation	1980	40	2020	49500	46500					

Operations Facilities Improvement														Lifecycle	Budget	Inflation	0.02
		Major										<------Non Inflated, HST Inclusive----->			<-Inflated, HST includ->		
													A	B	E=A*Inflatio	F=B*Infl^2	
Facility	**Responsible Name**	**Operating/Capital**	**Classification**	**Class Type**	**Description**	**Location**	**Attributes**	**Year Installed**	**Cycle Factor**	**Year Due**	**Replacement Value**	**2020**	**2021**	**2020 Budget Entry**	**2021 Budget Entry**	
Works Yard- Main Building	OOT		Building Envelope	Doors	Overhead Door	Waterworks-Garage	Steel with window inserts	1980	40	2020	60000	60000				
Works Yard- Main Building	OOT		Building Envelope	Doors	Overhead Door	Works- Garage	Steel with window inserts	1980	40	2020	120000	113320				
Works Yard- Main Building	OOT		Mechanical	Building Equipment	Door Opener	Wash Bay- East		1980	40	2020	2000	2000				
Works Yard- Waterworks Storage Shed	C		Architectural	Flooring	Concrete	Interior	Sealed concrete	1985	35	2020	20500	20500		375,500		
	OOT						Balance					35489	0		-	
										TOTAL =	749,800	749,509	0	714,500	0	
										Cost/Quote (Inflated, HST Excluded) = SUM(C,D) /1.0176				702,142	0	
												Internal Chargeback		50,000		
												External Consulting				
													Contingency			
													Subtotal	752,142	0	
													HST Impact=	12,358	0	
													Total	764,500	0	
														764,500	**0**	

2020 PROJECT FUNDING REQUEST FORM

Number: 20077

Project Cost: $75,200

Project Name: **Operations Fuel Sites Monitoring**

Repair/Replace

Commission: Corporate Services

Useful Life: 0 Pre Approval: ☐

Department: Asset Management

Category: Major

Project Mgr: Vicky Chan

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is a carryover from the 2015 Fuel Facilities project (#15261). Removal of the old fuel tanks has resulted in further testing and monitoring required by Technical Standards and Safety Authority (TSSA) and The Ministry of the Environment, Conservation and Parks (MECP) at 555 Miller, 428 John St. and 4415 14th Ave.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	10,000	0
Internal Charges:	0	0
External Consulting:	63,850	0
Sub Total:	73,850	0
HST Impact:	1,300	0
Total Project Cost:	**75,200**	**0**

NOTES

These are estimates only and requirements by legislative authorities (TSSA and MECP) may change depending upon test results.
This is a projected 3 year monitoring program.
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	75,200	0	0	0	0	0	0
TOTAL FUNDING	**75,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 357,700

Amount Incl HST 75,200

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20078

Project Cost: $211,300

Project Name: **Other Facilities Repair and/or Replacement Projects**

Repair/Replace

Commission: Corporate Services

Useful Life: 10 Pre Approval: ☐

Department: Asset Management

Project Mgr: Khwaja Waker

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Other(specify in Notes)

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain various other facilities in a state of good repair and in alignment to the Asset Management Plan/Policy. Items for repair and/or replacement in the Budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets, life cycle database and trending. Budget request is subject to change, based on condition assessment in previous year.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	207,645	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	207,645	0
HST Impact:	3,655	0
Total Project Cost:	**211,300**	**0**

NOTES

$39,700 Craft Guild - flooring (1991), millworks (1992), plumbing (1980)
$22,100 Elson Miles Farmhouse -flooring (1985), AC (1985), Crosby Booth - painting, millworks, fire detectors (1990-2011)
$149,500 9829 Ninth Line - bridge (1990), 7107 Reesor Rd - floor (1975), paint (2012), exterior wall/siding (1983), 7181 Reesor Road- exterior wall/siding (1975), septic tank(1985)
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Craft Guild	Components: Elson Miles Farmhouse, Crosby Food Booth	Components: Ninth line & Reesor Rd Houses		TOTAL	Future Phases
Operating Funded Life Cycle	211,300	39,700	22,100	149,500	0	211,300	0
TOTAL FUNDING	**211,300**					**211,300**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 211,300
Amount Incl HST 211,300
Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20080

Project Cost: $212,400

Project Name: **PVC Salt Dome Demolition**

Repair/Replace

Commission: Corporate Services

Useful Life: 0 Pre Approval: ☐

Department: Asset Management

Category: Minor

Project Mgr:

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The PVC Salt Dome at the 555 Miller Works Yard has been reviewed by an Engineering Consultant and requires a significant amount of structural repairs, ($220K) in order for the building to remain in use. The City opted to demolish this 39 year old structure and construct a new Salt Barn in 2019. This project includes the demolition of the old salt dome and old loading ramp and the construction of a new ramp for the 2 new Salt Barns.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	198,000	0
Internal Charges:	10,890	0
External Consulting:	0	0
Sub Total:	208,890	0
HST Impact:	3,485	0
Total Project Cost:	**212,400**	**0**

NOTES

Costs include demolition of the building structure, foundation and any related connections, demolition of existing loading ramp and construction of new loading ramp. *This is a high level estimate with no design work for background.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	212,400	0	0	0	0	0	0
TOTAL FUNDING	**212,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 2,408,500

Amount Incl HST 212,400

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

This project is funding by the unused LC funds as: $138K from AM Program & $74.5K from Roofing Replacement.

2020 PROJECT FUNDING REQUEST FORM

Number: 20081

Project Cost: $31,300

Project Name: **Recycling Depots Repair and/or Replacement Projects**

Repair/Replace

Commission: Corporate Services

Useful Life: 7 Pre Approval: ☐

Department: Asset Management

Project Mgr: Khwaja Waker

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Other(specify in Notes)

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain the recycling depots in a state of good repair and in alignment to the Asset Management Plan/Policy. Items for repair and /or replacement in the Budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets, life cycle database and trending. Budget request is subject to change, based on condition assessment in previous year.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	30,759	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	30,759	0
HST Impact:	541	0
Total Project Cost:	**31,300**	**0**

NOTES

$4,590 Recycling Program Containers
$2,230 Thornhill Recycling Depot heater
$24,480 Unionville Recycling Depot siding & sealant
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Recycling Program Containers	Components: Thornhill Recycling Depot heater	Components: Unionville Recycling Depot		TOTAL	Future Phases
Operating Funded Life Cycle	31,300	4,590	2,230	24,480	0	31,300	0
TOTAL FUNDING	**31,300**					**31,300**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 31,300
Amount Incl HST 31,300
Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20082

Project Cost: $143,400

Project Name: **Roofing Maintenance and Repair**

Repair/Replace

Commission: Corporate Services

Useful Life: 1 Pre Approval: ☐

Department: Asset Management

Project Mgr: Michael Ryan

Category: Annual

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Project scope includes annual routine maintenance and on demand roof leak repairs at all City of Markham facilities.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	140,920	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	140,920	0
HST Impact:	2,480	0
Total Project Cost:	**143,400**	**0**

NOTES

Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Maintenance & Repair	Components: On Demand/Consulting			TOTAL	Future Phases
Operating Funded Life Cycle	143,400	91,800	51,600	0	0	143,400	0
TOTAL FUNDING	**143,400**					**143,400**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	596,900
Amount Incl HST	143,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

LC has $91,800 for maintenance & $505,100 for replacement. This budget uses $91,800 from maintenance LC and $51,600 from replacment LC.

2020 PROJECT FUNDING REQUEST FORM

Number: 20083

Project Cost: $410,700

Project Name: **Roofing Replacement Projects**

Repair/Replace

Commission: Corporate Services

Useful Life: 20 Pre Approval: ☐

Department: Asset Management

Category: Major

Project Mgr: Michael Ryan

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project includes roofing and accessories replacement works at various locations throughout the City in a state of good repair and in alignment to the Asset Management Plan/Policy. Roofs for replacement in the budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets, life cycle database and trending. Budget request is subject to change, based on condition assessment in previous year.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	388,856	0
Internal Charges:	15,000	0
External Consulting:	0	0
Sub Total:	403,856	0
HST Impact:	6,844	0
Total Project Cost:	**410,700**	**0**

NOTES

$114,200 Old Unionville Library & CC (1967) and Markham Train Station cedar shingles (2001) required per Heritage
$91,800 German Mills CC (2005) & Warden House chimneys if necessary (1969) & asphalt shingles (2004).
$189,700 Toogood Pond Pavilion BUR (2003) cedar shingles (2010), Fire Station 92 BUR (2011), Thornhill Recycling Depot modified bitumen roofs (1985) and accessories
$15,000 Internal Chargeback. Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: OULCC, Mkhm Train Stn	German Mills, Warden House	Toogood Pd, FS92, Thrnhll Rcycl Depot	Int. Chargeback	TOTAL	Future Phases
Operating Funded Life Cycle	410,700	114,200	91,800	189,700	15,000	410,700	0
TOTAL FUNDING	**410,700**					**410,700**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 505,100

Amount Incl HST 410,700

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

LC has $505,100 for roofing replacement. This budget uses $410,700 for roofing replacement, defers $42,800 for Cedar Grove CC roof replacement, and supplements $51,600 to roofing maintenance budget.

2020 PROJECT FUNDING REQUEST FORM

Number: 20084

Project Cost: $143,200

Project Name: **Satellite Community Centre Repair and/or Replacement**

Repair/Replace

Commission: Corporate Services

Useful Life: 15 Pre Approval: ☐

Department: Asset Management

Project Mgr: Sameem Shah

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Other(specify in Notes)

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain the satellite community centres in a state of good repair and in alignment to the Asset Management Plan/Policy. Items for repair and/or replacement in the Budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets, life cycle database and trending. Budget request is subject to change, based on condition assessment in previous year.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	140,723	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	140,723	0
HST Impact:	2,477	0
Total Project Cost:	**143,200**	**0**

NOTES

$92,600 Box Grove CC flooring, walls, millworks, plumbing, foundation waterproofing
$24,500 Markham Train Station flooring (2001)
$26,100 Victoria Square CC flooring, lighting, heating
Any upgrades beyond standard finishes are the responsibilities of the Board
Amount requested is consistent with 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Box Grove CC	Components: Markham Train Station	Components: Victoria Square CC		TOTAL	Future Phases
Operating Funded Life Cycle	143,200	92,600	24,500	26,100	0	143,200	0
TOTAL FUNDING	**143,200**					**143,200**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 143,200

Amount Incl HST 143,200

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20085

Project Cost: $38,600

Project Name: **Tennis Clubhouse Repair and/or Replacement Projects**

Repair/Replace

Commission: Corporate Services

Useful Life: 10 Pre Approval: ☐

Department: Asset Management

Project Mgr: Sameem Shah

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program includes various life cycle works to maintain the Tennis Clubhouses in a state of good repair and in alignment to the Asset Management Plan/ Policy. Items for repair or/and replacement in the Budget year will be determined in the previous year, upon completion of annual condition assessment. Funding request is based on historical budgets, life cycle database and trending. Budget request is subject to change, based on condition assessment in previous year. Amount requested is consistent with 2019 Life Cycle Reserve Study update.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	37,932	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	37,932	0
HST Impact:	668	0
Total Project Cost:	**38,600**	**0**

NOTES

$2,040 Armadale Tennis Clubhouse exterior wood trim painting
$8,960 Box Grove Tennis Clubhouse doors and siding replacement and painting
$12,240 Pomona Valley Tennis Clubhouse exterior sealant and windows
$15,360 Unionville Tennis Clubhouse painting, windows and doors
As per Tennis Clubhouse Policy, 50% of the costs to be funded by respective club. Tennis clubhouse repair and/or replacement will proceed subject to satisfactory club finance review.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Armadale	Box Grove	Pomona Valley	Unionville	TOTAL	Future Phases
Operating Funded Life Cycle	23,780	1,020	8,960	6,120	7,680	23,780	0
Other External	14,820	1,020	0	6,120	7,680	14,820	0
TOTAL FUNDING	**38,600**					**38,600**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 19,300

Amount Incl HST 23,800

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

As per Tennis Clubhouse Policy.

2020 PROJECT FUNDING REQUEST FORM

Number: 20086

Project Cost: $88,600

Project Name: **Air Cylinders 45+ Minutes Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Fire & Emergency Services

Category: Minor

Project Mgr: Chris Nearing

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Legislative life cycle replacement of 43 carbon fibre breathing air cylinders for Self Contained Breathing Apparatus (SCBA)

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	87,075	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	87,075	0
HST Impact:	1,533	0
Total Project Cost:	**88,600**	**0**

NOTES

Carbon fibre wrapped air cylinders for self contained breathing apparatus must be replaced every 15 years (legislative). 43 cylinders @ $2,060/unit are due for replacement in 2020. Amount is consistent with the 2019 Life Cycle Reserve Study update. These units were last replaced in 2005. Current inventory is 286 x 45 min, 10 x 60 min, 4 x 15 min cylinders.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	88,600	88,600	0	0	0	88,600	0
TOTAL FUNDING	**88,600**					**88,600**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	91,300
Amount Incl HST	88,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20087

Project Cost: $168,900

Project Name: **Bunker Gear Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 7 Pre Approval: ☐

Department: Fire & Emergency Services

Category: Annual

Project Mgr: Chris Nearing

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 76 sets of bunker gear purchased in 2013. Request based on condition assessment in 2019 and legislative requirement to provide firefighters with structural firefighting protective equipment (bunker suit). Legislation: Health and Safety Act; Employer to maintain equipment and Section 21 Guidance Notes, Section 4 outlines standards for personal protective equipment. NFPA 1971 Standard on protection Ensembles for Structural Firefighting, minimum level of protection from thermal, physical, environmental and blood-borne pathogens. MFES has a contract for the supply and delivery of bunker gear 2018-2022.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	166,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	166,000	0
HST Impact:	2,922	0
Total Project Cost:	**168,900**	**0**

NOTES

Project cost is based on unit price of $2,222 x 76 suits, as per contract. Total inventory including spare bunker suits approx. 410 sets (suits ordered at 7 year mark to maintain adequate spare equipment, eliminates purchasing 2 full sets of bunker gear for each firefighter). A 3.5% price escalation will be applied from 2019 to 2022 as per contract. Amount is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	168,900	0	0	0	0	0	0
TOTAL FUNDING	**168,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	168,900
Amount Incl HST	168,900
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20088

Project Cost: $75,300

Project Name: **Defibrillator & Accessories Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Fire & Emergency Services

Category: Minor

Project Mgr: Chris Nearing/Adam Grant

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 13 Suppression Division Defibrillators with Accessories based on condition assessment. Replacement of 1 Automatic External Defibrillator utilized by the Public Education Division during events in the community.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	74,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	74,000	0
HST Impact:	1,302	0
Total Project Cost:	**75,300**	**0**

NOTES

Condition assessment performed on all units. Amount is consistent with the 2019 Life Cycle Reserve Study update. 13 Defibrillators @ $5,100/unit, 1 automatic external defibrillator for public education @ $2,250, and 3 automatic external defibrillator units for staff training @ $2,250. These units were last replaced in 2014.

SOURCE(S) OF FUNDING ($)		Components					Future
Funding Type	Budget	Suppression	Pub-Ed	Staff Training		TOTAL	Phases
Operating Funded Life Cycle	75,300	66,300	2,250	6,750	0	75,300	0
TOTAL FUNDING	**75,300**					**75,300**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	77,900
Amount Incl HST	75,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20089

Project Cost: $100,000

Project Name: **Firefighting Tools & Equipment Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: Pre Approval: ☐

Department: Fire & Emergency Services

Category: Annual

Project Mgr: Chris Nearing

Cost Validation: Other(specify in Notes)

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual replacement and purchase of firefighting tools & equipment. Examples include but are not limited to the following: hose, ladders, nozzles, hand tools, water rescue equipment, ropes, fire extinguishers, hydraulic rescue tools, oxygen equipment, air cylinders, SCBA masks & breathing valves, portable pumps, electric & gas operated saws, cribbing, hose appliances, portable radios, medical bags, fans, thermal camera & related equipment, laser temperature probes, travel restraint and lock out kits.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	98,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	98,300	0
HST Impact:	1,730	0
Total Project Cost:	**100,000**	**0**

NOTES

Purchases occur due to condition assessment/legislative requirements/circumstances. Because of the nature of the department activities, equipment may require purchase/replacement due to damage and condition, beyond economical repair or technological change. Amount is consistent with the 2019 Life Cycle Reserve Study update. This project funding meets the current needs of the Fire Department and keeps all tools and equipment in a good state of operational order.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	100,000	0	0	0	0	0	0
TOTAL FUNDING	**100,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	100,000
Amount Incl HST	100,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20090

Project Cost: $20,900

Project Name: **Hazardous Materials - Decontamination Tent**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Fire & Emergency Services

Category: Annual

Project Mgr: Chris Nearing

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Life Cycle Replacement of 1 Decontamination Tent based on condition assessment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	20,506	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	20,506	0
HST Impact:	361	0
Total Project Cost:	**20,900**	**0**

NOTES

Amount is consistent with the 2019 Life Cycle Reserve Study update. Condition assessment performed in 2019. 2019 quote: $15,190 USD @ 1.35 f/x. This unit was last replaced in 2010. Equipment being replaced will be utilized for training, in hopes to extend the useful life of the new purchase.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	20,900	0	0	0	0	0	0
TOTAL FUNDING	**20,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	21,400
Amount Incl HST	20,900
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20091

Project Cost: $12,300

Project Name: **Hose Rolling Equipment Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Fire & Emergency Services

Category: Annual

Project Mgr: Adam Grant

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of hose rolling equipment package. Package includes 2 coupling jaws, additional battery pack and charger and hose adapters. Motorized unit for rolling and draining of all diameters of firehose. Used extensively by the in house fire crew responsible for the annual testing of all MFES firehose.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	12,110	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	12,110	0
HST Impact:	213	0
Total Project Cost:	**12,300**	**0**

NOTES

Amount is consistent with the 2019 Life Cycle Reserve Study update. $12,300 for power roller and all required accessories. Condition assessment performed. Equipment was last replaced in 2015 and has a 5 year life span.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	12,300	12,300	0	0	0	12,300	0
TOTAL FUNDING	**12,300**					**12,300**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	12,300
Amount Incl HST	12,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20092

Project Cost: $8,700

Project Name: **Rapid Intervention Rescue Packs Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Fire & Emergency Services

Project Mgr: Adam Grant

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 2 rapid intervention crew (RIC) rescue packs. To comply with the Occupational Health and Safety Act 25(1)(b) maintain equipment in good condition and 25(2)(h) Section 21 Guidance notes regarding firefighter rescue. Provision of the equipment is necessary to rescue a firefighter who is trapped or disoriented during a fire. When a fire occurs, legislation requires that MFES has the equipment, training, policies and procedures to rescue a firefighter who is trapped or missing.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	8,568	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	8,568	0
HST Impact:	151	0
Total Project Cost:	**8,700**	**0**

NOTES

Two of six units are being replaced. The cost of each unit is $4,350 (x 2 replacements). Units that are not in need of replacement and are assessed annually for condition. The associated equipment to perform this rescue is maintained on 6 apparatus to provide redundancy and to ensure that the equipment is on location of a fire, with one spare unit for a total of 7. These units were last replaced in 2010.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	8,700	0	0	0	0	0	0
TOTAL FUNDING	**8,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	24,900
Amount Incl HST	8,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20093

Project Cost: $95,300

Project Name: **Replacement of Equipment due to Staff Retirements**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 1 Pre Approval: ☐

Department: Fire & Emergency Services

Category: Annual

Project Mgr: Chris Nearing

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Purchase of personal protective clothing, uniforms and equipment for each recruit following the retirement of a firefighter. Legislation: OH&S 25.(2)(h) An employer shall take every precaution reasonable in the circumstances for the protection of a worker. Section 21 Guidance Notes, Section 4 in its entirety outlines standards for personal protective equipment and practices to protect firefighters. NFPA 1971 Standard on Protective Ensembles for Structural Firefighting, establishes minimal levels of protection from thermal, physical, environmental and blood-borne pathogens.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	93,636	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	93,636	0
HST Impact:	1,648	0
Total Project Cost:	**95,300**	**0**

NOTES

The cost of personal protective clothing, uniforms and equipment is approximately $7,941 per firefighter based on 2019 quotations. Forecasted estimate of 12 retirements for 2020. Some retiree equipment is repurposed as spare.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	95,300	0	0	0	0	0	0
TOTAL FUNDING	**95,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	95,200
Amount Incl HST	95,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20094

Project Cost: $93,500

Project Name: **Rescue Equipment - Powered Hydraulics Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Fire & Emergency Services

Category: Minor

Project Mgr: Chris Nearing

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 2 sets of Powered Hydraulics Portable Rescue Equipment for Fire Truck 931 & 971. Equipment to include hydraulic cutters, hydraulic spreaders, hydraulic rams, portable power plants and supporting equipment. Hydraulic equipment as listed enables fire crews to engage in life saving interventions, such as automobile extrication and confined space and other types of rescue.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	91,901	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	91,901	0
HST Impact:	1,617	0
Total Project Cost:	**93,500**	**0**

NOTES

Replacement of equipment that has fulfilled its established useful life cycle. 2 units @ $46,750/unit. This equipment was last replaced in 2005. Total inventory is 5 complete sets.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	93,500	93,500	0	0	0	93,500	0
TOTAL FUNDING	**93,500**					**93,500**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	142,800
Amount Incl HST	93,500
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20095

Project Cost: $42,600

Project Name: **Rescue Equipment - Water Rescue Equipment Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Fire & Emergency Services

Project Mgr: Chris Nearing

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of 1 fortuna boat for 957 based on condition assessment. The fortuna allows for entry into open water to engage in rescue. Replacement of 12 shore based water rescue kits.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	41,860	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	41,860	0
HST Impact:	737	0
Total Project Cost:	**42,600**	**0**

NOTES

Replacement of equipment that has fulfilled its established useful life cycle based on condition assessment. 1 fortuna boat @$6,000 and 12 rescue kits @$3,050/kit. Equipment last replaced in 2015. Total inventory of fortuna boats = 4, and total inventory of rescue kits = 12.

SOURCE(S) OF FUNDING ($)		Components				
Funding Type	Budget	fortuna	rescue kits		TOTAL	Future Phases
Operating Funded Life Cycle	42,600	6,000	36,600	0	42,600	0
TOTAL FUNDING	**42,600**				**42,600**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	142,800
Amount Incl HST	42,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20096

Project Cost: $203,500

Project Name: **Angus Glen C.C. Arena Condenser Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☑ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing arena condenser at Angus Glen C.C. The unit being replaced includes all piping insulation and pumps.The condenser's main function is to facilitate condensation of the ammonia gas. It achieves this by using cooler ambient air, water or a combination of the two to extract heat from the gas. Sufficiently cooled, the ammonia returns to liquid form and is circulated back to the chiller, completing the refrigeration cycle.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	200,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	200,000	0
HST Impact:	3,520	0
Total Project Cost:	**203,500**	**0**

NOTES

The existing condenser was installed in 2004. A condition assessment of the unit indicates replacement is warranted. Recent staff award was for a single rink at Milliken Mills whereas Angus Glen has a double rink. The condenser at Angus Glen is double the size, has 3 pumps to be replaced and the labor cost will be higher than the recent Milliken award as the work will be completed without disruption of services and no loss of revenue. The amount requested is consistent with recent quote plus inflation.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	203,500	0	0	0	0	0	0
TOTAL FUNDING	**203,500**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	919,300
Amount Incl HST	203,500
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Arena Condenser $223.9k , Rooftop Condenser $145.5k , Gym Curtains $34.6K , Lifeguard Chairs $9.3K , Library Lighting $151.2k, Security System $136.6k , Flooring Replacement $75.7k, Parking lot lights $142.5K (moved to Milliken Mills C.C. as per Parking Lot light management program)

2020 PROJECT FUNDING REQUEST FORM

Number: 20097

Project Cost: $75,700

Project Name: **Angus Glen C.C. Flooring Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☑ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the rubber flooring in the Multi-Purpose Room located on the second level at the Angus Glen C.C.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	74,400	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	74,400	0
HST Impact:	1,309	0
Total Project Cost:	**75,700**	**0**

NOTES

The existing flooring was installed in 2005. A condition assessment on the flooring indicate replacement is warranted. There is 4,500 square feet of rubber flooring in the Multi-Purpose Room which is used for programs, summer camps, seniors programs, and party events. The space is the largest room in the centre which delivers good revenue to support the annual budget expectations. A condition assesment of the flooring indicates replacement is warranted. Amount is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	75,700	0	0	0	0	0	0
TOTAL FUNDING	**75,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	919,300
Amount Incl HST	75,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Arena Condenser $223.9k , Rooftop Condenser $145.5k , Gym Curtains $34.6K , Lifeguard Chairs $9.3K , Library Lighting $151.2k, Security System $136.6k , Flooring Replacement $75.7k, Parking lot lights $142.5K (moved to Milliken Mills C.C. as per Parking Lot light management program)

2020 PROJECT FUNDING REQUEST FORM

Number: 20098

Project Cost: $34,600

Project Name: **Angus Glen C.C. Gym Curtain Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☑ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the gym curtain in the gymnasium at Angus Glen C.C. The gym curtain is used to divide the gymnasium to allow for multiple sports to be played at the same time.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	34,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	34,000	0
HST Impact:	598	0
Total Project Cost:	**34,600**	**0**

NOTES

Existing gym curtain was installed in 2005. A condition assessment of the unit indicates replacement is warranted. Amount is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	34,600	0	0	0	0	0	0
TOTAL FUNDING	**34,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	919,300
Amount Incl HST	34,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Arena Condenser $223.9k , Rooftop Condenser $145.5k , Gym Curtains $34.6K , Lifeguard Chairs $9.3K , Library Lighting $151.2k, Security System $136.6k , Flooring Replacement $75.7k, Parking lot lights $142.5K (moved to Milliken Mills C.C. as per Parking Lot light management program)

2020 PROJECT FUNDING REQUEST FORM

Number: 20099

Project Cost: $9,300

Project Name: **Angus Glen C.C. Lifeguard Chair Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☑ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the mounted lifeguard chair in the aquatics centre at Angus Glen C.C.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	9,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	9,100	0
HST Impact:	160	0
Total Project Cost:	**9,300**	**0**

NOTES

Existing lifeguard chair was installed in 2010. A condition assessment of the unit indicates replacement is warranted. Lifeguard chairs is a legislative piece of equipment used in aquatics centres. Lifeguard chairs offer lifeguards an unblocked view of the water and swimmers from an elevated position. The elevated position allows for lifeguards to maintain swimmer safety. Amount is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	9,300	0	0	0	0	0	0
TOTAL FUNDING	**9,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 919,300

Amount Incl HST 9,300

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Arena Condenser $223.9k , Rooftop Condenser $145.5k , Gym Curtains $34.6K , Lifeguard Chairs $9.3K , Library Lighting $151.2k, Security System $136.6k , Flooring Replacement $75.7k, Parking lot lights $142.5K (moved to Milliken Mills C.C. as per Parking Lot light management program)

2020 PROJECT FUNDING REQUEST FORM

Number: 20100

Project Cost: $132,300

Project Name: **Angus Glen C.C. Rooftop Condenser Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☑ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace two (2) existing arena Rooftop (RTU) condensers at Angus Glen C.C. The units provide air conditioning for the arena, which run in conjunction with Air handling unit (AHU) 1 and 2. Air conditioning supports dehumidification and helps to maintain lower air temperatures when the ice is out, which in turn reduces demand on refrigeration equipment during start up.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	130,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	130,000	0
HST Impact:	2,288	0
Total Project Cost:	**132,300**	**0**

NOTES

Existing condensers were installed in 2004. A condition assessment of the units indicate replacement is warranted. Two (2) units x $65,000 per unit including labour and disposal = $130,000. Cost is consistent with recent staff award plus inflation. Amount is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	132,300	0	0	0	0	0	0
TOTAL FUNDING	**132,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 919,300

Amount Incl HST 132,300

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Arena Condenser $223.9k , Rooftop Condenser $145.5k , Gym Curtains $34.6K , Lifeguard Chairs $9.3K , Library Lighting $151.2k, Security System $136.6k , Flooring Replacement $75.7k, Parking lot lights $142.5K (moved to Milliken Mills C.C. as per Parking Lot light management program)

2020 PROJECT FUNDING REQUEST FORM

Number: 20101

Project Cost: $218,500

Project Name: **Armadale C.C. Fire Prevention System Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing fire prevention system at Armadale C.C. Replacing the fire prevention system will support meeting legislative requirements and ensuring a safe environment for users and staff.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	196,740	0
Internal Charges:	0	0
External Consulting:	18,000	0
Sub Total:	214,740	0
HST Impact:	3,779	0
Total Project Cost:	**218,500**	**0**

NOTES

Existing fire system was installed in 1996 and is original to the building. This will mark the first time this item will be replaced since the building opened. A condition assessment of the system indicates replacement is warranted. Included in this replacement is the annunciator panel, a fire alarm panel, the sprinkler system, labour and disposal. Amount is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	sprinkler system	Anunciator panel	Fire alarm Panel	Consultant	TOTAL	Future Phases
Operating Funded Life Cycle	218,500	184,790	3,195	12,200	18,315	218,500	0
TOTAL FUNDING	**218,500**					**218,500**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	550,100
Amount Incl HST	218,500
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Rooftop Unit $142.8, Millwork $137.9K (reduced from $163.8K), Sprinkler System $227.8k , Security System $15.7K

2020 PROJECT FUNDING REQUEST FORM

Number: 20102

Project Cost: $132,200

Project Name: **Armadale C.C. Millwork Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace millwork in the meeting room, multi-purpose room 1 & 2, Denison room, gym storage room and main office at Armadale C.C. Sections of the storage units are broken, due to age and extensive use and the counters have peeled and chipped.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	118,700	0
Internal Charges:	0	0
External Consulting:	11,187	0
Sub Total:	129,887	0
HST Impact:	2,286	0
Total Project Cost:	**132,200**	**0**

NOTES

The millwork at Armadale C.C. were installed in 1996 and are original to the building. A condition assessment of the units indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	132,200	0	0	0	0	0	0
TOTAL FUNDING	**132,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 550,100

Amount Incl HST 132,200

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Rooftop Unit $142.8, Millwork $137.9K (reduced from $163.8K), Sprinkler System $227.8k , Security System $15.7K

2020 PROJECT FUNDING REQUEST FORM

Number: 20103

Project Cost: $136,600

Project Name: **Armadale C.C. Rooftop Unit Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing roof top unit at Armadale C.C. The unit provides heating and cooling for the gymnasium. This replacement will support customer service by providing a well-conditioned environment for user groups

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	122,000	0
Internal Charges:	0	0
External Consulting:	12,200	0
Sub Total:	134,200	0
HST Impact:	2,362	0
Total Project Cost:	**136,600**	**0**

NOTES

Existing roof top unit (RTU) was installed in 1996. A condition assessment of the unit indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	136,600	0	0	0	0	0	0
TOTAL FUNDING	**136,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 550,100

Amount Incl HST 136,600

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Rooftop Unit $142.8, Millwork $137.9K (reduced from $163.8K), Sprinkler System $227.8k , Security System $15.7K

2020 PROJECT FUNDING REQUEST FORM

Number: 20104

Project Cost: $10,000

Project Name: **Centennial C.C. Gas Monitors Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Bob Bell

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace (3) gas monitors,(Carbon Dioxide, Ammonia, Propane) that are located in the arena at Centennial C.C. Arena gas controllers are a vital control system to monitor and ensure effective operations of the refrigeration plant. Under CSA, B52 Mechanical refrigeration Code, arenas have legislative requirements for gas monitors to detect refrigerant leak. The project includes the replacement of gas monitors, and commissioning.

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PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	9,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	9,800	0
HST Impact:	172	0
Total Project Cost:	**10,000**	**0**

NOTES

Gas monitors at Centennial were independently replaced in 1998, 1999 and 2000. A condition assessment of these units indicates replacement is warranted. The amount requested is consistent with recent quote plus inflation.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	10,000	0	0	0	0	0	0
TOTAL FUNDING	**10,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	712,800
Amount Incl HST	10,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: BAS $296K , Gas Monitors $10K , Heaters $6.4K , HVAC $61.5K , Lighting $15K ,Arena Painting $80.9K (reduced from $229.4k) , Pool Equipment $21.5K , Sauna $18.9K , Sound system $13.4K , Surge Drum $40.7k

2020 PROJECT FUNDING REQUEST FORM

Number: 20105

Project Cost: $56,000

Project Name: **Centennial C.C. HVAC Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 24 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Bob Bell

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace two (2) Heating, Ventilation and Air Conditioning (HVAC) units in the arena change rooms at Centennial C.C. The HVAC units provide the north and south dressing rooms with heating and air circulation. In addition, they provide proper air ventilation for the dressing rooms. The scope of work includes the removal, disposal, supply and installation for a new HVAC with additional duct work transitions. The units are original to the arena and this is the first time this item is being replaced.

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PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	55,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	55,000	0
HST Impact:	968	0
Total Project Cost:	**56,000**	**0**

NOTES

The twenty ton HVAC units are in the arena at Centennial C.C. were last replaced in 1996. A condition assessment of these units indicate that replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	56,000	0	0	0	0	0	0
TOTAL FUNDING	**56,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	712,800
Amount Incl HST	56,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: BAS $296K , Gas Monitors $10K , Heaters $6.4K , HVAC $61.5K , Lighting $15K ,Arena Painting $80.9K (reduced from $229.4k) , Pool Equipment $21.5K , Sauna $18.9K , Sound system $13.4K , Surge Drum $40.7k

2020 PROJECT FUNDING REQUEST FORM

Number: 20106

Project Cost: $21,500

Project Name: **Centennial C.C. Pool Equipment Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 8 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Bob Bell

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace (2) life guard chairs , (1) pool vacuum, (1) sump pump controller located in the pool area at Centennial C.C.

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PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	21,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	21,100	0
HST Impact:	371	0
Total Project Cost:	**21,500**	**0**

NOTES

Pool equipment lifeguard chair was last replaced in 2010, pool vacuum was last replaced in 2016 and sump pump controller in 2002. A condition assessment of these units warrants replacement. Cost is based on a recent quote.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	Chairs	Vacuum	Controlloer		TOTAL	Future Phases
Operating Funded Life Cycle	21,500	10,000	4,500	7,000	0	21,500	0
TOTAL FUNDING	**21,500**					**21,500**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	712,800
Amount Incl HST	21,500
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: BAS $296K , Gas Monitors $10K , Heaters $6.4K , HVAC $61.5K , Lighting $15K ,Arena Painting $80.9K (reduced from $229.4k) , Pool Equipment $21.5K , Sauna $18.9K , Sound system $13.4K , Surge Drum $40.7k

2020 PROJECT FUNDING REQUEST FORM

Number: 20107

Project Cost: $17,200

Project Name: **Centennial C.C. Saunas Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 7 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Bob Bell

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the cedar wood in the saunas located in the fitness change rooms at Centennial C.C.These saunas are located in the fitness change rooms and are used by fitness members.

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PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	16,900	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	16,900	0
HST Impact:	297	0
Total Project Cost:	**17,200**	**0**

NOTES

The wood was last replaced in 2013. A condition assessment of the sauna indicate replacement is warranted. Cost is based on a recent quote plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	17,200	0	0	0	0	0	0
TOTAL FUNDING	**17,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	712,800
Amount Incl HST	17,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: BAS $296K , Gas Monitors $10K , Heaters $6.4K , HVAC $61.5K , Lighting $15K ,Arena Painting $80.9K (reduced from $229.4k) , Pool Equipment $21.5K , Sauna $18.9K , Sound system $13.4K , Surge Drum $40.7k

2020 PROJECT FUNDING REQUEST FORM

Number: 20108

Project Cost: $37,000

Project Name: **Centennial C.C. Surge Drum Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Bob Bell

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the surge drum located in the arena refrigeration plant at Centennial C.C. The surge drum is part of the refrigeration plant that separates the liquid out of the gas returning from the evaporator and allowing the gas to pass to the compressor through the suction line and to return the liquid to the evaporator for re-circulation.

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PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	36,400	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	36,400	0
HST Impact:	641	0
Total Project Cost:	**37,000**	**0**

NOTES

The surge drum was installed in 1999. A condition assessment of the unit indicates replacement is warranted. Cost is based on a recent quote plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	37,000	0	0	0	0	0	0
TOTAL FUNDING	**37,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,484,800

Amount Incl HST 37,000

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: BAS $296K , Gas Monitors $10K , Heaters $6.4K , HVAC $61.5K , Lighting $15K ,Arena Painting $80.9K (reduced from $229.4k) , Pool Equipment $21.5K , Sauna $18.9K , Sound system $13.4K , Surge Drum $40.7k

2020 PROJECT FUNDING REQUEST FORM

Number: 20109

Project Cost: $6,400

Project Name: **Centennial C.C. Washroom Heater Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Bob Bell

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace four (4) electrical heaters in the arena washrooms at Centennial C.C.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	6,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	6,300	0
HST Impact:	111	0
Total Project Cost:	**6,400**	**0**

NOTES

The four washroom heaters were last replaced in 2000. A condition assessment of these units indicate replacement is warranted. The amount requested is based on quote plus inflation. Cost per unit is $1,600/unit including labour.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	6,400	0	0	0	0	0	0
TOTAL FUNDING	**6,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	712,800
Amount Incl HST	6,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: BAS $296K , Gas Monitors $10K , Heaters $6.4K , HVAC $61.5K , Lighting $15K ,Arena Painting $80.9K (reduced from $229.4k) , Pool Equipment $21.5K , Sauna $18.9K , Sound system $13.4K , Surge Drum $40.7k

2020 PROJECT FUNDING REQUEST FORM

Number: 20110

Project Cost: $23,400

Project Name: **Clatworthy Arena Brine Pump Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the brine pump in the refrigeration room at Clatworthy C.C. In a refrigeration system the brine pump distributes the secondary refrigerant through a network of pipes located within the refrigerated cold floor, typically concrete. Calcium Chloride brine acts very similar to a salt solution and over time will deteriorate the wall thickness of both the brine headers and supply/return main. To ensure optimum ice is maintained, the brine pump should be replaced

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	23,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	23,000	0
HST Impact:	405	0
Total Project Cost:	**23,400**	**0**

NOTES

The existing brine pump was installed in 1985. A condition assessment of the unit indicates replacement is warranted. Cost is consistent with recent staff award plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	23,400	0	0	0	0	0	0
TOTAL FUNDING	**23,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	6,100
Amount Incl HST	23,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Brine Pumps $23.4k, Change room Tiles and Shower Valves 21.7k, Security System 10k

2020 PROJECT FUNDING REQUEST FORM

Number: 20111

Project Cost: $19,700

Project Name: **Cornell C.C. Aerial Platform Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 8 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Adriano Trabucco

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace one (1) genie lift (Aerial Platform) for completing high work task at the Cornell C.C. Aerial work platforms are designed to enhance productivity in the workplace.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	19,400	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	19,400	0
HST Impact:	341	0
Total Project Cost:	**19,700**	**0**

NOTES

The existing aerial platform was purchased in 2012. A condition assessment of the unit indicates replacement is warranted. The lightweight construction of an aerial platform allows them to be easily maneuvered, used and transported, and they deliver excellent uptime. The replacement aerial platform is to service the second floor of Cornell C.C. and this can be accomplished due to its small size and low weight to be transported from the service elevator. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	19,700	0	0	0	0	0	0
TOTAL FUNDING	**19,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	772,000
Amount Incl HST	19,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Aluminum Grates $8k, Carpet Flooring $34k (reduced from $39.6k) , Carbon Dioxide Controller $9.3k, Drinking Fountains $15k, Genie Lift $19.7k, Groumets $21.4k, Lighting $47.6k, Linoleum Flooring $11k, Painting $7.8k, Pressure Washer $8.4k, Pumps $84k, Security System $216.5k, Shower Values $17.2k, Floor Scrubber $48.4k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20112

Project Cost: $9,300

Project Name: **Cornell C.C. CO2 Controller Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 8 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Adriano Trabucco

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace four (4) Carbon Dioxide (CO2) controllers located in the pool mechanical room at the Cornell C.C. Carbon dioxide plays an important role in the makeup and balancing of pool water by pushing chlorine from the chemical vat into the pool.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	9,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	9,100	0
HST Impact:	160	0
Total Project Cost:	**9,300**	**0**

NOTES

The existing CO2 controllers were installed in 2012. A condition assessment of the units indicates that replacement is warranted. The amount requested is based on a recent quote plus inflation. Cost per unit $2,325*4 units = $9,300 including labour.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	9,300	0	0	0	0	0	0
TOTAL FUNDING	**9,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 772,000

Amount Incl HST 9,300

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Aluminum Grates $8k, Carpet Flooring $34k (reduced from $39.6k) , Carbon Dioxide Controller $9.3k, Drinking Fountains $15k, Genie Lift $19.7k, Groumets $21.4k, Lighting $47.6k, Linoleum Flooring $11k, Painting $7.8k, Pressure Washer $8.4k, Pumps $84k, Security System $216.5k, Shower Values $17.2k, Floor Scrubber $48.4k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20113

Project Cost: $15,000

Project Name: **Cornell C.C. Drinking Fountains Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Adriano Trabucco

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace five (5) drinking fountains in various locations at the Cornell C.C. Drinking fountains provide access to water for hydration and to have a bottle filling station for patrons and to promote sustainable standards across the City.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	14,700	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	14,700	0
HST Impact:	259	0
Total Project Cost:	**15,000**	**0**

NOTES

The existing water fountains were installed in 2012 and although the replacement is 2 years ahead of schedule, a condition assessment of the unit indicates replacement is warranted. Cost per unit is $3000 x five (5) = 15,000 including labour. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	15,000	0	0	0	0	0	0
TOTAL FUNDING	**15,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 772,000

Amount Incl HST 15,000

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Aluminum Grates $8k, Carpet Flooring $34k (reduced from $39.6k) , Carbon Dioxide Controller $9.3k, Drinking Fountains $15k, Genie Lift $19.7k, Groumets $21.4k, Lighting $47.6k, Linoleum Flooring $11k, Painting $7.8k, Pressure Washer $8.4k, Pumps $84k, Security System $216.5k, Shower Values $17.2k, Floor Scrubber $48.4k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20114

Project Cost: $8,000

Project Name: **Cornell C.C. Floor Grates Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Adriano Trabucco

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing ten (10) floor grates located in the south vestibule entrance at Cornell C.C. Entrance floor grates help control chemical and dirt pollutants, keeping lobbies and interiors cleaner, limiting occupant exposure and reducing the use of cleaning supplies.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	7,900	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	7,900	0
HST Impact:	139	0
Total Project Cost:	**8,000**	**0**

NOTES

Existing aluminum grates were installed in 2012 and although the replacement is 2 years ahead of schedule, a condition assessment of the units indicates that replacement is warranted. The cost per aluminum grill is $800 x 10 locations = $8,000. This price is inclusive of labour. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	8,000	0	0	0	0	0	0
TOTAL FUNDING	**8,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	772,000
Amount Incl HST	8,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Aluminum Grates $8k, Carpet Flooring $34k (reduced from $39.6k) , Carbon Dioxide Controller $9.3k, Drinking Fountains $15k, Genie Lift $19.7k, Groumets $21.4k, Lighting $47.6k, Linoleum Flooring $11k, Painting $7.8k, Pressure Washer $8.4k, Pumps $84k, Security System $216.5k, Shower Values $17.2k, Floor Scrubber $48.4k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20115

Project Cost: $21,400

Project Name: **Cornell C.C. Glass Grommets Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Adriano Trabucco

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the glass grommets in pool area at Cornell C.C. The grommets are used to hold glass panels together that form a structural wall to separate community centre from pool.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	21,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	21,000	0
HST Impact:	370	0
Total Project Cost:	**21,400**	**0**

NOTES

Due to the humid environment, the existing glass grommets facing the interior of the pool area have corroded. Based on condition assessment, the glass grommets are used to support the pool glass structural wall requires replacement. There are 1,140 grommets in the pool area that need to be replaced. The new grommets will be coated for the environment and to meet Building Code. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	21,400	0	0	0	0	0	0
TOTAL FUNDING	**21,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	772,000
Amount Incl HST	21,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Aluminum Grates $8k, Carpet Flooring $34k (reduced from $39.6k) , Carbon Dioxide Controller $9.3k, Drinking Fountains $15k, Genie Lift $19.7k, Groumets $21.4k, Lighting $47.6k, Linoleum Flooring $11k, Painting $7.8k, Pressure Washer $8.4k, Pumps $84k, Security System $216.5k, Shower Values $17.2k, Floor Scrubber $48.4k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20116

Project Cost: $34,000

Project Name: **Cornell C.C. Library Carpet Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 8 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Adriano Trabucco

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the carpet on the main floor and the program room in the Library at the Cornell C.C. Carpet is a prefered flooring for the library space, because it is water resistance and provides better accoustics.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	33,400	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	33,400	0
HST Impact:	588	0
Total Project Cost:	**34,000**	**0**

NOTES

The existing carpet tile was installed in 2012. A condition assessment of the unit indicates replacement is warranted. In 2018, carpet tiles were replaced due to stains, fading and lifting. Based on 2019 award at Angus Glen carpet tile was $4.97 sqft X 6,818 sqft = $33,885.46, cost includes disposal and labour for the installation. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	34,000	0	0	0	0	0	0
TOTAL FUNDING	**34,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	772,000
Amount Incl HST	34,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Aluminum Grates $8k, Carpet Flooring $34k (reduced from $39.6k) , Carbon Dioxide Controller $9.3k, Drinking Fountains $15k, Genie Lift $19.7k, Groumets $21.4k, Lighting $47.6k, Linoleum Flooring $11k, Painting $7.8k, Pressure Washer $8.4k, Pumps $84k, Security System $216.5k, Shower Values $17.2k, Floor Scrubber $48.4k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20118

Project Cost: $8,400

Project Name: **Cornell C.C. Power Washer Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Adriano Trabucco

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace one (1) power washer located in the pool mechanical room that is used to clean the pool deck and changerooms at the Cornell C.C. The corrosive environment has been rectified in 2019 by re-locating the chlorine stroage tanks to the exterior of the facilty will ensure the industry lifespan of the unit is met.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	8,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	8,300	0
HST Impact:	146	0
Total Project Cost:	**8,400**	**0**

NOTES

The existing power washer was installed in 2012 and although the replacement is 2 years ahead of schedule, a condition assessment of the unit indicates replacement is warranted. The corrosive environment has been rectified in 2019 by re-locating the chlorine stroage tanks to the exterior of the facilty will extend the useful life of the new unit. Cost for the unit is based on a recent quote.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	8,400	0	0	0	0	0	0
TOTAL FUNDING	**8,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	772,000
Amount Incl HST	8,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Aluminum Grates $8k, Carpet Flooring $34k (reduced from $39.6k) , Carbon Dioxide Controller $9.3k, Drinking Fountains $15k, Genie Lift $19.7k, Groumets $21.4k, Lighting $47.6k, Linoleum Flooring $11k, Painting $7.8k, Pressure Washer $8.4k, Pumps $84k, Security System $216.5k, Shower Values $17.2k, Floor Scrubber $48.4k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20119

Project Cost: $84,000

Project Name: **Cornell C.C. Pumps Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 8 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Adriano Trabucco

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace eight (8) pool pumps, four (2) whirlpool pumps, four (4) pit pumps and one (1) glycol pump located in the pool mechancial room at Cornell C.C. The pumps serve the pool water, storm and waste pits, glycol heating, and whirlpools.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	82,500	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	82,500	0
HST Impact:	1,452	0
Total Project Cost:	**84,000**	**0**

NOTES

The existing pumps were installed in 2012 and are located in the pump room. A condition assessment of the pumps indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	11 Pool Pumps	7 Mechanical Pumps			TOTAL	Future Phases
Operating Funded Life Cycle	84,000	60,000	24,000	0	0	84,000	0
TOTAL FUNDING	**84,000**					**84,000**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	772,000
Amount Incl HST	84,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Aluminum Grates $8k, Carpet Flooring $34k (reduced from $39.6k) , Carbon Dioxide Controller $9.3k, Drinking Fountains $15k, Genie Lift $19.7k, Groumets $21.4k, Lighting $47.6k, Linoleum Flooring $11k, Painting $7.8k, Pressure Washer $8.4k, Pumps $84k, Security System $216.5k, Shower Values $17.2k, Floor Scrubber $48.4k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20120

Project Cost: $17,200

Project Name: **Cornell C.C. Shower Valves Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Adriano Trabucco

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace 36 shower valves located in five (5) change rooms at Cornell C.C. The shower valves are used to control water flow in showers. The existing shower valves are electronic and malfunction frequently. The replacement parts are located in a confined space which staff cannot access. These units should be replaced together in 2020 pool shutdown, to avoid disruption of services.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	16,950	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	16,950	0
HST Impact:	298	0
Total Project Cost:	**17,200**	**0**

NOTES

The existing shower valves were installed in 2012 and although the replacement is 4 years ahead of schedule, a condition assessment of the units indicates replacement is warranted. The repair cost in 2018 (batteries, switch, holder and timer) was $8,000 and plumber labour cost $9100. The replacement cost of each shower valve is $490. (36 valves * $490/unit = $17,200) the cost includes labour and disposal. Cost is consistent with recent quote plus inflation. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	17,200	0	0	0	0	0	0
TOTAL FUNDING	**17,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	772,000
Amount Incl HST	17,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Aluminum Grates $8k, Carpet Flooring $34k (reduced from $39.6k) , Carbon Dioxide Controller $9.3k, Drinking Fountains $15k, Genie Lift $19.7k, Groumets $21.4k, Lighting $47.6k, Linoleum Flooring $11k, Painting $7.8k, Pressure Washer $8.4k, Pumps $84k, Security System $216.5k, Shower Values $17.2k, Floor Scrubber $48.4k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20121

Project Cost: $8,000

Project Name: **Crosby C.C. Garbage Fence Enclosure Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the pressure treated wood fence that encloses the garbage bin area at the exterior of Crosby C.C.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	7,900	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	7,900	0
HST Impact:	139	0
Total Project Cost:	**8,000**	**0**

NOTES

The existing fence was last replaced in 1985. A condition assessment of the fence indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	8,000	0	0	0	0	0	0
TOTAL FUNDING	**8,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	125,100
Amount Incl HST	8,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Rubber Flooring $49.2k, Millwork $52.4k, Pumps $36.6k (reduced from $40.78k), Fence $8k

2020 PROJECT FUNDING REQUEST FORM

Number: 20122

Project Cost: $47,600

Project Name: **Crosby C.C. Millwork Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing countertops, sinks, and faucets in the Arena and Lamplight Room washrooms at Crosby C.C. Sections of the counter tops have deteriorated and cracked due to age. It is essential that the counters be replaced to maintain a standard of quality.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	46,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	46,800	0
HST Impact:	824	0
Total Project Cost:	**47,600**	**0**

NOTES

The millwork units in the lobby washrooms and the hall washrooms were last replaced in 1999. A condition assessment of the units indicate replacement is warranted. Cost per unit is consistent with recent quote plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	47,600	0	0	0	0	0	0
TOTAL FUNDING	**47,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	125,100
Amount Incl HST	47,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Rubber Flooring $49.2k, Millwork $52.4k, Pumps $36.6k (reduced from $40.78k), Fence $8k

2020 PROJECT FUNDING REQUEST FORM

Number: 20123

Project Cost: $36,600

Project Name: **Crosby C.C. Pump Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace one (1) glycol pump, one (1) brine pump,one (1) underfloor heat pump,one (1) heating pump for the refrigeration room and one (1) recirculating pump for the west mechanical room at the Crosby C.C. The pumps serve the Arena by supplying refrigerant through a network of piping underneath the concrete floor.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	36,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	36,000	0
HST Impact:	634	0
Total Project Cost:	**36,600**	**0**

NOTES

These pumps were installed in 2009 and although is 1 year ahead of schedule, a condition assesment indicates replacement is warranted. The cost per unit is consistent with recent quote plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	36,600	0	0	0	0	0	0
TOTAL FUNDING	**36,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 125,100

Amount Incl HST 36,600

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Rubber Flooring $49.2k, Millwork $52.4k, Pumps $36.6k (reduced from $40.78k), Fence $8k

2020 PROJECT FUNDING REQUEST FORM

Number: 20124

Project Cost: $35,700

Project Name: **ECO Camp Chimo Equipment Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Luke Hilts

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace various amenities and equipment due for replacement at Camp Chimo. In 2018, 1,046 registered participants took part in programs at Camp Chimo.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	35,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	35,100	0
HST Impact:	618	0
Total Project Cost:	**35,700**	**0**

NOTES

The items due for replacement include: benches, shelters, sheds, and canoes. A condition assessment indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	35,700	0	0	0	0	0	0
TOTAL FUNDING	**35,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	35,700
Amount Incl HST	35,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Craft Shelter $15.5K, Wooden Bridges $5.5K, Canoes $7K, Sheds $7.7K

2020 PROJECT FUNDING REQUEST FORM

Number: 20125

Project Cost: $24,000

Project Name: **Heintzman House Boiler Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace one (1) boiler in the mechanical room at the Heintzman House. The boiler tank holds and maintains heated water for the facility's showers and washrooms. The replacement of the boiler will support maintaining a clean efficient delivery of hot water throughout the facility.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	23,600	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	23,600	0
HST Impact:	415	0
Total Project Cost:	**24,000**	**0**

NOTES

The existing boiler was installed in 2004 and although the replacement is 4 years ahead of schedule, a condition assessment of the unit indicates replacement is warranted. There are two boilers in Heintzman House, one replaced in 2018. The existing boiler needs to be replaced in order for the two boilers to communicate properly for cycling and lead of operation. The amount requested is consistent with recent staff award plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	24,000	0	0	0	0	0	0
TOTAL FUNDING	**24,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	58,800
Amount Incl HST	24,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Boiler $24k, Fireplace $7.8k (reduced from $8k), Floor refinishing $19.9k, Kitchen Stove $8.1k

2020 PROJECT FUNDING REQUEST FORM

Number: 20126

Project Cost: $7,100

Project Name: **Heintzman House Fireplace Gas Insert**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to install a gas insert fireplace into the existing block structure fireplace at Heintzman House. Due to the type of fireplace, it is not used for safety reasons and does not meeting Fire Code. The existing fireplace will be replaced with a gas fireplace insert which can be used by rental groups. This will improve the aesthetics of the space making it more attractive to potential renters.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	7,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	7,000	0
HST Impact:	123	0
Total Project Cost:	**7,100**	**0**

NOTES

The existing fireplace was installed in 1930 and is original to the building. The amount requested is consistent with the recent quote plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	7,100	0	0	0	0	0	0
TOTAL FUNDING	**7,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	58,800
Amount Incl HST	7,100
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Boiler $24k, Fireplace $7.8k (reduced from $8k), Floor refinishing $19.9k, Kitchen Stove $8.1k

2020 PROJECT FUNDING REQUEST FORM

Number: 20128

Project Cost: $8,100

Project Name: **Heintzman House Stove Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace one (1) existing industrial grade gas stove located in the kitchen at Heintzman House. This replacement will support providing this space with a functioning kitchen that can be used for catered events. The Heintzman House is primarily rented for wedding functions, which require use of a stove.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	8,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	8,000	0
HST Impact:	141	0
Total Project Cost:	**8,100**	**0**

NOTES

The existing industrial grade stove was last installed in 2008. A condition assessment of the unit indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	8,100	0	0	0	0	0	0
TOTAL FUNDING	**8,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	58,800
Amount Incl HST	8,100
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Boiler $24k, Fireplace $7.8k (reduced from $8k), Floor refinishing $19.9k, Kitchen Stove $8.1k

2020 PROJECT FUNDING REQUEST FORM

Number: 20129

Project Cost: $13,100

Project Name: **Markham Village C.C. Ceiling Tile Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Bob Bell

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing ceiling tiles located in the boardroom and the complete upper second floor in Markham Village C.C. Ceiling tiles are used to conceal mechanical and sprinkler system making it ashetically pleasing. The ceiling tiles are located in the board room and the complete second floor ceiling of the facility.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	12,900	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	12,900	0
HST Impact:	227	0
Total Project Cost:	**13,100**	**0**

NOTES

The existing ceiling tiles were installed in 1995. A condition assessment of the space indicates replacement is warranted. There is 4,365sqft x $3.00 sqft =$13,095, cost includes labour for installation and disposal of the old units. The amount requested is consistent with recent quote plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	13,100	0	0	0	0	0	0
TOTAL FUNDING	**13,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	130,600
Amount Incl HST	13,100
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle Includes: Ceiling Tile $13.1k, Shower Tiles $39.9k, Marquee $14.8k (reduced from $77.5k)

2020 PROJECT FUNDING REQUEST FORM

Number: 20130

Project Cost: $14,800

Project Name: **Markham Village C.C. Marquee Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Bob Bell

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace one (1) digital marquee at Markham Village C.C. The marquee is located outside the front of the centre and serves the public for advertising of City functions, programing, and events tied to Content Management System for emergency messaging.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	14,500	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	14,500	0
HST Impact:	255	0
Total Project Cost:	**14,800**	**0**

NOTES

The existing marquee at Markham Village C.C. was installed 2002. A condition assessment of the unit indictaes replacement is warranted. The Marquee is malfunctioning and there is no replacement parts available. The amount requested is consistent with the recent quote plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	14,800	0	0	0	0	0	0
TOTAL FUNDING	**14,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 130,600

Amount Incl HST 14,800

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle Includes: Ceiling Tile $13.1k, Shower Tiles $39.9k, Marquee $14.8k (reduced from $77.5k)

2020 PROJECT FUNDING REQUEST FORM

Number: 20131

Project Cost: $36,300

Project Name: **Markham Village C.C. Shower Tiles Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 25 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Bob Bell

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing wall and ceramic floor tiles in the arena changeroom shower area at Markham Village C.C.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	35,700	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	35,700	0
HST Impact:	628	0
Total Project Cost:	**36,300**	**0**

NOTES

The existing ceramic tiles were installed in 1995. A condition assessment indicates that replacement is warrented. The replacement includes the wall and floor tiles, 1,300 sqft x $27.30 = $35,700, the cost includes labour for installation and disposal of the old units. The amount requested is consistent with the recent staff award plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	36,300	0	0	0	0	0	0
TOTAL FUNDING	**36,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	130,600
Amount Incl HST	36,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle Includes: Ceiling Tile $13.1k, Shower Tiles $39.9k, Marquee $14.8k (reduced from $77.5k)

2020 PROJECT FUNDING REQUEST FORM

Number: 20132

Project Cost: $203,500

Project Name: **Milliken Mills C.C. Arena Boards and Frame Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the rink boards and frames in the Arena at Milliken Mills C.C. This replacement supports providing a safe environment for arena users.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	200,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	200,000	0
HST Impact:	3,520	0
Total Project Cost:	**203,500**	**0**

NOTES

Existing rink boards were installed in 1990. A condition assessment of the system indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	203,500	0	0	0	0	0	0
TOTAL FUNDING	**203,500**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,483,700

Amount Incl HST 203,500

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Scoreboard $15.4k, Floor Machine $22.5k, Heat Exchanger $14.8k, Bleacher Heaters $24.4k, Arena Foundation $901.9k, Arena Board $223.9k, Arena Paint $8k, Furnace $103.8k, Bleachers Seating $29.2k, Flooring $119.7k, Mixing Values $4k (deferred), Filter Pump $3k (deferred), Life Safety Monitor $5k (deferred), Kitchen Equipment $8k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20133

Project Cost: $14,800

Project Name: **Milliken Mills C.C. Arena Heat Exchanger Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the heat exchanger for the refrigeration system in the Arena at Milliken Mills CC. The unit is used to facilitate the transfer of heat between refrigerants, and greatly increases the speed of the temperature change from hot to cold to allow the ice to freeze faster.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	14,500	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	14,500	0
HST Impact:	255	0
Total Project Cost:	**14,800**	**0**

NOTES

The existing unit was installed in 2000. A condition assessment of the unit indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	14,800	0	0	0	0	0	0
TOTAL FUNDING	**14,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,483,700

Amount Incl HST 14,800

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Scoreboard $15.4k, Floor Machine $22.5k, Heat Exchanger $14.8k, Bleacher Heaters $24.4k, Arena Foundation $901.9k, Arena Board $223.9k, Arena Paint $8k, Furnace $103.8k, Bleachers Seating $29.2k, Flooring $119.7k, Mixing Values $4k (deferred), Filter Pump $3k (deferred), Life Safety Monitor $5k (deferred), Kitchen Equipment $8k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20134

Project Cost: $24,400

Project Name: **Milliken Mills C.C. Arena Heater Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing bleacher heaters in the Arena at Milliken Mills C.C. The arena heaters provide heating to patrons sitting on the bleachers. By providing heating to the space, we are creating an optimal environment for viewing thus increasing the customer service level we are providing.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	24,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	24,000	0
HST Impact:	422	0
Total Project Cost:	**24,400**	**0**

NOTES

This project consists of replacing four (4) natural gas tube heaters suspended over the spectator seating. These units were installed in 2004. A condition assessment of the units indicates replacement is warranted. The amount requested is consistent with a recent quote.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	24,400	0	0	0	0	0	0
TOTAL FUNDING	**24,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,483,700
Amount Incl HST	24,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Scoreboard $15.4k, Floor Machine $22.5k, Heat Exchanger $14.8k, Bleacher Heaters $24.4k, Arena Foundation $901.9k, Arena Board $223.9k, Arena Paint $8k, Furnace $103.8k, Bleachers Seating $29.2k, Flooring $119.7k, Mixing Values $4k (deferred), Filter Pump $3k (deferred), Life Safety Monitor $5k (deferred), Kitchen Equipment $8k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20135

Project Cost: $859,900

Project Name: **Milliken Mills C.C. Arena Pad Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 30 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Ryan Hanna

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing arena pad and header trench system in the Arena at Milliken Mills C.C. The secondary refrigerant must be distributed to the network of pipe located within the refrigerated cold floor, typically concrete. This is accomplished via a set of supply and return headers, which are normally located within an open trench covered by either wood planks or steel. This replacement includes the concrete pad, the header return and supply piping, the header trench and the underfloor heating .

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	825,000	0
Internal Charges:	0	0
External Consulting:	20,000	0
Sub Total:	845,000	0
HST Impact:	14,872	0
Total Project Cost:	**859,900**	**0**

NOTES

Existing arena pad and header piping system was installed in 1982 and is original. A condition assessment of the pad and the header trench system indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	859,900	0	0	0	0	0	0
TOTAL FUNDING	**859,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,483,700

Amount Incl HST 859,900

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Scoreboard $15.4k, Floor Machine $22.5k, Heat Exchanger $14.8k, Bleacher Heaters $24.4k, Arena Foundation $901.9k, Arena Board $223.9k, Arena Paint $8k, Furnace $103.8k, Bleachers Seating $29.2k, Flooring $119.7k, Mixing Values $4k (deferred), Filter Pump $3k (deferred), Life Safety Monitor $5k (deferred), Kitchen Equipment $8k (deferred)

Project	**Milliken Mills CC Arena Pad Replacement**
2020 Capital Request	$859,000
Funding Source	Operating Life Cycle
Description of Program	This project is to replace the existing arena pad and header trench system in the Arena at Milliken Mill CC. The Secondary refrigerant must be distributed to the network of pipe located within the refrigerated cold floor, typically concrete. This is accomplished via a set of supply and return headers, which are normally located within an open trench covered by either wood planks or steel. This replacement includes the concrete pad, the header return and supply piping, the header trench and the underfloor heating.
Project Rationale	Existing arena pad and header piping system was installed in 1982 and is original. A condition assessment of the pad and the header trench system indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study Update.
Legislative Requirement	N/A
History	Arena pad is original to Milliken Mills C.C. The arena was first developed on site (1982) and then in 1989, the community centre and library was added onto the arena. The arena pad has met its expected functional capacity and requires replacement. The Milliken Mills arena serves as a space for local sport organizations delivering ice related activities. Furthermore, in the summer months, when ice is removed, the space serves as a ball hockey arena and a summer camp site for users and residents. In 2018, Milliken Mills C.C. had over 2.16M visitors.
Future Phases	N/A
Total Project Cost (incl. all phases)	$859,000
Related Projects	Arena Boards and Frame Replacement – replacing the arena pad is timed with the replacement of the arena boards and frames. The existing boards and frames have also met its expected use and are removed prior to the pad replacement. Once complete, the replacement of the existing boards and frames will be completed.
Related Maps	N/A
Alignment to the Strategic Plan	Safe & Sustainable Community – This replacement project is to replace new piping used to move refrigerant to maintain and make ice for the arena during the ice season. Completion of this project enables Milliken Mills C.C. to continue in delivering enhanced programming to residents in a safe and sustainable manner.

2020 PROJECT FUNDING REQUEST FORM

Number: 20136

Project Cost: $15,400

Project Name: **Milliken Mills C.C. Arena Scoreboard Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr:

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing arena scoreboard and shotclock in the Arena at Milliken Mills CC. Parts are no longer available for the existing controller. Included in the replacement are labour, removal of old clock, supply and install of new clock, safety screen, shot clock and two controllers (one main, one back up). This project supports community programming and sport by providing a means of tracking score and time for community groups.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	15,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	15,100	0
HST Impact:	266	0
Total Project Cost:	**15,400**	**0**

NOTES

The arena score clock was installed in 2007. The unit has been experiencing problems and a condition assessment of the unit indicates replacement is warranted . The amount requested is consistent with recent staff award plus inflation

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	15,400	0	0	0	0	0	0
TOTAL FUNDING	**15,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,483,700
Amount Incl HST	15,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Scoreboard $15.4k, Floor Machine $22.5k, Heat Exchanger $14.8k, Bleacher Heaters $24.4k, Arena Foundation $901.9k, Arena Board $223.9k, Arena Paint $8k, Furnace $103.8k, Bleachers Seating $29.2k, Flooring $119.7k, Mixing Values $4k (deferred), Filter Pump $3k (deferred), Life Safety Monitor $5k (deferred), Kitchen Equipment $8k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20137

Project Cost: $29,200

Project Name: **Milliken Mills C.C. Arena Spectator Seating Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing Arena spectator seating in the Arena at Milliken Mills C.C. The spectator seating provides a space for patrons to sit and watch a number of sports, activities and programs being played on the ice rink. This replacement also supports customer service by providing a comfortable space for patrons

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	28,692	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	28,692	0
HST Impact:	505	0
Total Project Cost:	**29,200**	**0**

NOTES

The existing bleachers were installed in 2000. A condition assessment of the units indicates replacement is warranted. The amount requested is consistent with the Life Cycle Reserve Update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	29,200	0	0	0	0	0	0
TOTAL FUNDING	**29,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,483,700

Amount Incl HST 29,200

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Scoreboard $15.4k, Floor Machine $22.5k, Heat Exchanger $14.8k, Bleacher Heaters $24.4k, Arena Foundation $901.9k, Arena Board $223.9k, Arena Paint $8k, Furnace $103.8k, Bleachers Seating $29.2k, Flooring $119.7k, Mixing Values $4k (deferred), Filter Pump $3k (deferred), Life Safety Monitor $5k (deferred), Kitchen Equipment $8k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20138

Project Cost: $95,100

Project Name: **Milliken Mills C.C. Furnace Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Cost Validation: External peer review

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the furnace in the Arena at the Milliken Mills C.C. The unit is used to heat the arena dressing rooms and the arena lobby.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	85,000	0
Internal Charges:	0	0
External Consulting:	8,500	0
Sub Total:	93,500	0
HST Impact:	1,646	0
Total Project Cost:	**95,100**	**0**

NOTES

Existing unit was installed in 2000. A condition assessment of the unit indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	95,100	0	0	0	0	0	0
TOTAL FUNDING	**95,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,483,700
Amount Incl HST	95,100
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Scoreboard $15.4k, Floor Machine $22.5k, Heat Exchanger $14.8k, Bleacher Heaters $24.4k, Arena Foundation $901.9k, Arena Board $223.9k, Arena Paint $8k, Furnace $103.8k, Bleachers Seating $29.2k, Flooring $119.7k, Mixing Values $4k (deferred), Filter Pump $3k (deferred), Life Safety Monitor $5k (deferred), Kitchen Equipment $8k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20140

Project Cost: $142,500

Project Name: **Milliken Mills C.C. Parking Lot Light Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Ryan Hanna

Cost Validation: External peer review

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing parking lot lights at Milliken Mills C.C. This replacement ensures continued community safety by providing adequate light in the parking lot. This replacement is part of an ongoing parking lot replacement study conducted by asset management.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	140,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	140,000	0
HST Impact:	2,464	0
Total Project Cost:	**142,500**	**0**

NOTES

Existing arena parking lot lights were installed in 1989. A condition assessment of the lights indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	142,500	0	0	0	0	0	0
TOTAL FUNDING	**142,500**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	919,300
Amount Incl HST	142,500
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Lifecycle includes: Arena Condenser $223.9k , Rooftop Condenser $145.5k , Gym Curtains $34.6K , Lifeguard Chairs $9.3K , Library Lighting $151.2k, Security System $136.6k , Flooring Replacement $75.7k, Parking lot lights $142.5K (moved to Milliken Mills C.C. as per Parking Lot light management program)

2020 PROJECT FUNDING REQUEST FORM

Number: 20141

Project Cost: $34,100

Project Name: **Milliken Mills Soccer Dome Door Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the existing entrance doors with accessible sliding doors at Milliken Mills Soccer Dome. The Unionville Minor Soccer Club as well as the City of Markham uses the Soccer Dome for soccer programs. This replacement will support the City of Markham's initiative to convert existing spaces to be more accessible by replacing the doors with automatic sliding doors.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	33,500	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	33,500	0
HST Impact:	590	0
Total Project Cost:	**34,100**	**0**

NOTES

The existing entrance doors were installed in 1997 and are original to the building. A condition assessment of the doors indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	34,100	0	0	0	0	0	0
TOTAL FUNDING	**34,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	34,200
Amount Incl HST	34,100
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Sliding Doors $34.1K

2020 PROJECT FUNDING REQUEST FORM

Number: 20142

Project Cost: $24,600

Project Name: **Morgan Pool Equipment Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 9 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Bob Bell

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace two (2) life guard chairs and one (1) diving board, one (1) adult change table, one (1) chair lift at the Morgan Pool. Lifeguard chairs are an integral piece of legislative equipment used in aquatics centres. Lifeguard chairs offer lifeguards an unblocked view of the water and swimmers from an elevated position to ensure swimmer safety. The adult change table and the deck chair lift are required to meet AODA with the renovation of the building.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	24,200	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	24,200	0
HST Impact:	426	0
Total Project Cost:	**24,600**	**0**

NOTES

The existing diving board was installed in 2013. The existing lifeguard chairs were installed in 2011. A condition assessment of the units indicate replacement is warranted. This project is separate from the phase 2 construction project at Morgan Pool as it pertains specifically to aquatics equipment and not building envelope. The amount requested is consistent with the 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	24,600	0	0	0	0	0	0
TOTAL FUNDING	**24,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	46,400
Amount Incl HST	24,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Diving Board, Guard Chairs, Adult Table, Chair Lift $24,600, Filter, Vacuum and Pump $21,800.

2020 PROJECT FUNDING REQUEST FORM

Number: 20143

Project Cost: $21,800

Project Name: **Morgan Pool Mechanical Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Bob Bell

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace (1) sand filter which is the main component of filtering the pool water to ensure the users are safe from bacteria, replace (1) re-circulating pump that circulates the water for the pool and replace (1) pool vacuum that cleans debris in the pool at the Morgan Pool.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	21,400	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	21,400	0
HST Impact:	377	0
Total Project Cost:	**21,800**	**0**

NOTES

The existing pool filter was installed in 1997 and the industry lifespan is 20 years which has been surpassed. The existing pool pump was installed in 1996 and has exceeded its useful life expectancy of 12 years. A condition assessment of the units indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	21,800	0	0	0	0	0	0
TOTAL FUNDING	**21,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	46,400
Amount Incl HST	21,800
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Diving Board, Guard Chairs, Adult Table, Chair Lift $24600, Filter, Vacuum and Pump $21,800.

2020 PROJECT FUNDING REQUEST FORM

Number: 20144

Project Cost: $37,300

Project Name: **Mt. Joy C.C. Low Emissivity Ceiling Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Bob Bell

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to remove and replace the low emissivity ceiling in the arena for Mount Joy C.C. The low emissivity ceiling is a vital part of the refrigeration system. In order to maintain good ice quality, maintain energy efficiency and to ensure for continuous service, the low emissivity ceiling replacement will be required.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	36,659	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	36,659	0
HST Impact:	645	0
Total Project Cost:	**37,300**	**0**

NOTES

The existing low emissivity ceiling was installed in 1995. A condition assessment of the ceiling indicates replacement is warranted. The amount requested is consistent with recent staff award plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	37,300	0	0	0	0	0	0
TOTAL FUNDING	**37,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	122,400
Amount Incl HST	37,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Lifec Cycle includes: Low Emissivity Ceiling $41k (reduced from 64.1k), Overhead Doors $11k, Security System $30.9k, Painting $16.4k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20145

Project Cost: $9,800

Project Name: **Mt. Joy C.C. Overhead Doors Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Bob Bell

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to three (3) replace the overhead doors in the arena at Mount Joy C.C. The overhead doors are part of the building security and part of the building envelope to ensure an air tight seal of the building.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	9,643	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	9,643	0
HST Impact:	170	0
Total Project Cost:	**9,800**	**0**

NOTES

The existing overhead doors were installed in 1987. A condition assessment of the doors indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	9,800	0	0	0	0	0	0
TOTAL FUNDING	**9,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	122,400
Amount Incl HST	9,800
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Lifecycle includes: Low Emissivity Ceiling $41k (reduced from 64.1k), Overhead Doors $11k, Security System $30.9k, Painting $16.4k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20146

Project Cost: $22,400

Project Name: **Old Unionville Library Mechanical Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Paul Singleton

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace two (2) air conditioning units and two (2) furnaces at the Old Unionville Library. The mechanical units condition air temperatures to provide a comfortable environment for users.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	22,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	22,000	0
HST Impact:	387	0
Total Project Cost:	**22,400**	**0**

NOTES

Existing air conditioning units and furnaces were installed in 2002. A condition assessment of the units indicates replacement is warranted. Included in this replacement are (2) AC units, two (2) furnaces, labour and disposal. AC unit = $4,000 per unit x 2 units = $8,000. Furnace = $6,000 per unit x 2 units = $12,000. Labour = $2,000 The amount requested is consistent with recent quote.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	AC Unit	Furnace	Labour		TOTAL	Future Phases
Operating Funded Life Cycle	22,400	8,000	12,000	2,000	0	22,000	0
TOTAL FUNDING	**22,400**					**22,000**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 71,400

Amount Incl HST 22,400

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Air Conditioning and Furnace $24.6k (reduced from $42k), Vinyl Tile $22.4k, Painting $5.5k, Exhaust Fan $1.5k(deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20147

Project Cost: $20,400

Project Name: **Old Unionville Library Vinyl Tile Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 18 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing vinyl tile in the north and south room at Old Unionville Library. Vinyl flooring is specifically used at Old Unionville Library in north and south room due to high levels of moisture experienced in its rooms and the type of activities being programmed.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	20,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	20,000	0
HST Impact:	352	0
Total Project Cost:	**20,400**	**0**

NOTES

The vinyl tile was last replaced in 2000. A condition assessment of the tile indicates replacement is warranted. Included in this replacement are labour, disposal and vinyl tile. Vinyl tile costs approximately $12 per sq ft x 1,650 (1,800) sq ft = $ 19,800. Unit cost is consistent with recent award plus inflation.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	20,400	0	0	0	0	0	0
TOTAL FUNDING	**20,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	71,400
Amount Incl HST	20,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Air Conditioning and Furnace $24.6k (reduced from $42k), Vinyl Tile $22.4k, Painting $5.5k, Exhaust Fan $1.5k(deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20148

Project Cost: $60,600

Project Name: **Pan Am Centre Lighting Automation**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Paul Giddings

Cost Validation: External peer review

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to install automated (BACnet) lighting retrofit at Pan Am Centre. Currently the lighting system does not give a full control over the lighting to the facility team. The operator is not able to modify the zone schedules individually. An updated and modified lighting system with proper level of access will allow switching off and proper control over the system by in-house staff. It will provide operators and cleaners to control the lights at the lighting control system during occupied hours and after occupancy.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	59,600	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	59,600	0
HST Impact:	1,049	0
Total Project Cost:	**60,600**	**0**

NOTES

This project is to install a BACnet control system, which will create an integrated SMART lighting control systems for all physical lighting at Pan Am. In addition, the project will include an interface that will create remote accesse for all of Pan Am lighting within the City of Markham's wide area network (WAN). This project will align the Corporate Energy Management System. At this time, estimate savings are undetermined, however staff anticipate better controls of the system will show a reduction in utilities.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Other Internal	60,600	0	0	0	0	0	0
TOTAL FUNDING	**60,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20149

Project Cost: $467,300

Project Name: **Pan Am Centre Vestibule**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Paul Giddings / Janis Cookson

Cost Validation: Internal peer review

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to add an outside (external) vestibule on the South side at Pan Am Centre. Other Internal funding will be from the existing Pan Am construction project.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	459,200	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	459,200	0
HST Impact:	8,082	0
Total Project Cost:	**467,300**	**0**

NOTES

The Pan Am lobby does not retain adequate heat during the winter months. The position of the lobby doors and the lack of depth in its vestibules allow an extensive amount of exchange of air that overwhelms the existing mechanical system resulting in low temperatures in the lobby. Assessments were completed in 2018, which resulted in recommendations to mitigate heat loss. All recommendations had minimal success. This has created an uncomfortable environment for users in the lobby area.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Other Internal	467,300	0	0	0	0	0	0
TOTAL FUNDING	**467,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20150

Project Cost: $28,000

Project Name: **Pan Am Heat Exchanger Reconstruction**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Paul Giddings

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to correct the design of the heat exchanger at Pan Am Centre so that its intended use is met. A specialized condition assessment called an "isotherm report" was conducted to assess existing system functionality, which identified inefficiencies. The current piping configuration of the domestic hot water make-up preheat heat exchanger (HX-4) was piped in a manner that results in wasted energy. The interpretation of the design intent of the domestic hot water preheat heat exchanger is it that it utilizes heat from the low temperature hot water loop to preheat the domestic make up water.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	27,507	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	27,507	0
HST Impact:	484	0
Total Project Cost:	**28,000**	**0**

NOTES

The existing heat exchanger was installed in 2014. E3: Annual savings $24,392, 2020 savings $12,196. Payback 1.2 years. The amount requested is consistent with the 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: heat exchanger	Components: DWH Piping			TOTAL	Future Phases
Operating Funded Life Cycle	28,000	3,500	24,000	0	0	27,500	0
TOTAL FUNDING	**28,000**					**27,500**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	-$12,196	$0	-$12,196

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	116,500
Amount Incl HST	28,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Isotherm $28k (reduced from 164.5k), Pool Equipment $16.3k, Floor Machine $61.2k, Lane Ropes $15.6k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20151

Project Cost: $16,300

Project Name: **Pan Am Pool Equipment Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 6 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Paul Giddings

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the pool equipment at Pan Am. The replacement includes: one (1) shot clock, twenty (2) starter blocks, twenty (20) touch pads and one (1) sound system. The replacement of this equipment supports Pan Am Centre's ability to host international sporting events. In 2018, Pan Am hosted 49 aquatics events.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	16,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	16,000	0
HST Impact:	282	0
Total Project Cost:	**16,300**	**0**

NOTES

The existing pool equipment was installed in 2014. A condition assessment of the equipment indicates replacement is warranted. Sound system $3,462, shot clock $1,921, touch pads $7,697, starting block $3,220, total $16,300. The amount requested is consistent with recent staff award plus inflation.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: sound system	shot clock	touch pads	starting block	TOTAL	Future Phases
Operating Funded Life Cycle	16,300	3,462	1,921	7,697	3,220	16,300	0
TOTAL FUNDING	**16,300**					**16,300**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	116,500
Amount Incl HST	16,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Isotherm $28k (reduced from 164.5k), Pool Equipment $16.3k, Floor Machine $61.2k, Lane Ropes $15.6k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20152

Project Cost: $18,400

Project Name: **Recreation AED Program Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Annual

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The 2020 AED annual program will include the replacement of eight (8) AED trainer kits and 12 AED trainer pads. This project is to replace AED equipment city wide.

BUILDING MARKHAM'S FUTURE TOGETHER:

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	18,060	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	18,060	0
HST Impact:	318	0
Total Project Cost:	**18,400**	**0**

NOTES

There are currently 54 AED units in the City of Markham. The AED units have been used 6 times since 2018. 2008 and 2016 in Centennial C.C., 2010 and 2019 at the Milliken Mills C.C., 2016 and 2018 at Angus Glen C.C.. Cost per AED trainer kits are $600 per unit ($600 x 20 = $12,000) and trainer pads are $266 per unit ($266 x 24 = $6384). Price is consistent with recent staff award. The Life Cycle Reserve Study will be adjusted accordingly in the next update. *This is an annual program and funding will be requested each year.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	18,400	0	0	0	0	0	0
TOTAL FUNDING	**18,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	18,400
Amount Incl HST	18,400
Year in the study	

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

The amount requested matches Life Cycle as the formula is the 3-year average.

2020 PROJECT FUNDING REQUEST FORM

Number: 20153

Project Cost: $85,500

Project Name: **Recreation Aquatic Equipment Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Recreation Services

Category: Annual

Project Mgr: Eric Ho

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This annual replacement program for aquatics equipment is for eight (8) aquatics facilities (indoor and outdoor).

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	84,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	84,000	0
HST Impact:	1,478	0
Total Project Cost:	**85,500**	**0**

NOTES

The 3 year average spend is $85,500. Aquatics equipment is used to support programs that are revenue generating. The Life Cycle Reserve Study will be adjusted accordingly in the next update.
*This is an annual program and funding will be requested each year.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	85,500	0	0	0	0	0	0
TOTAL FUNDING	**85,500**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	71,800
Amount Incl HST	73,100
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

The amount requested matches Life Cycle as the formula is the 3-year average.

2020 PROJECT FUNDING REQUEST FORM

Number: 20154

Project Cost: $20,400

Project Name: **Recreation Aquatics Safety Audit**

Commission: Community & Fire Services

Department: Recreation Services

Project Mgr: Eric Ho

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 5 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project includes a safety audit on Aquatic pools and amenities within Recreation Services. Lifesaving Society is the governing body overlooking water safety and is the auditor of the program. The City of Markham engages Lifesaving Society every five (5) years for an aquatics safety audit.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	20,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	20,000	0
HST Impact:	352	0
Total Project Cost:	**20,400**	**0**

NOTES

The aquatics safety audit was last completed in 2015. This audit is completed on a five (5) year cycle. Recreation Services currently operates eight (8) community pools. The comprehensive aquatic safety audit is conducted by the Lifesaving Society to ensure the safety of the participants in all community pools operated by the City of Markham. The audit identify steps and recommendations to minimize risk of drowning or serious water-related injuries in aquatic related facilities. The Life Cycle Reserve Study will be adjusted accordingly in the next update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	20,400	0	0	0	0	0	0
TOTAL FUNDING	**20,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 20,400

Amount Incl HST 20,400

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

The amount requested is consistent with Life Cycle as the program repeats every 5 years.

2020 PROJECT FUNDING REQUEST FORM

Number: 20155

Project Cost: $186,900

Project Name: **Recreation Autonomous Floor Scrubbers**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This pilot project is to replace the existing floor-cleaning machine at Milliken Mills CC (1), Cornell C.C. (1) and Pan Am (1). This request is to replace the manual T7 floor scrubbers with autonomous models. Autonomous models allow for cleaning to be done during facility shut down hours, thereby creating opportunities for staff to address other tasks that are associated with other facility standards.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	183,650	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	183,650	0
HST Impact:	3,232	0
Total Project Cost:	**186,900**	**0**

NOTES

Based on condition assessment the existing floor scrubbing machines have reached their useful life and replacement is warranted. The amount requested is consistent with recent quote plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Milliken	Pan Am	Cornell		TOTAL	Future Phases
Operating Funded Life Cycle	93,700	22,100	24,000	47,610	0	93,710	0
Tax	93,200	38,200	38,100	13,640	0	89,940	0
TOTAL FUNDING	**186,900**					**183,650**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,600,200

Amount Incl HST 46,900

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle Statement: Milliken $22,100, Pan Am $24,000, Cornell $47,610

2020 PROJECT FUNDING REQUEST FORM

Number: 20156

Project Cost: $374,300

Project Name: **Recreation Building Automation System (BAS) Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Category: Major

Project Mgr: Ryan Hanna

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☑ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing Building Automation System (BAS) at Rouge River C.C. and Centennial C.C. This BAS replacement will follow Corporate BAS standards which support functionality and the goals of the City to improve building mechanical operations

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	326,600	0
Internal Charges:	0	0
External Consulting:	41,200	0
Sub Total:	367,800	0
HST Impact:	6,473	0
Total Project Cost:	**374,300**	**0**

NOTES

The existing BAS was installed in 2001 for Rouge River and 2000 for Centennial CC. A condition assessment of systems indictaes replacement is warranted. E3: The replacement of Rouge River BAS system will result in an annual hydro savings of $2,259 starting in 2021. The replacement of Centennial BAS system will result in annual hydro savings of $20,228 starting in 2021. There will be no savings achieved in 2020. The energy savings will be assessed after the completion of the project through measure and verification process.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Centennial	Rouge			TOTAL	Future Phases
Operating Funded Life Cycle	374,300	296,000	78,300	0	0	374,300	0
TOTAL FUNDING	**374,300**					**374,300**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	855,900
Amount Incl HST	374,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle Statement: Centennial $ 296,000, Rouge River CC $78,300

2020 PROJECT FUNDING REQUEST FORM

Number: 20157

Project Cost: $190,300

Project Name: **Recreation Fitness Equipment Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Eric Ho

Category: Annual

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual replacement program for the fitness equipment at City owned facilities. The items being replaced are strength, cardio, and flooring equipment.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	187,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	187,000	0
HST Impact:	3,291	0
Total Project Cost:	**190,300**	**0**

NOTES

The formula for replacement of equipment is based on an industry standard that states 8% of gross revenue will represent the replacement value of equipment to service membership. Fitness Revenue in 2018 was $2.326M when multiplied by the industry standard of 8%, it equates to $187,000. The formula used is consistent with previous years' budgets.
*This is an annual program and funding will be requested each year.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	190,300	0	0	0	0	0	0
TOTAL FUNDING	**190,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	227,400
Amount Incl HST	190,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Request in based on formula: *Fitness Equipment is 2018 Revenue ($2.326M)*8% = $187,000

2020 PROJECT FUNDING REQUEST FORM

Number: 20159

Project Cost: $134,900

Project Name: **Recreation Painting Projects**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 8 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☑ 5 ☑ 6 ☑ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to paint the basement area at Thornhill C.C, interior area space at Pingle House, north and south rooms at Old Unionville, study rooms located in the library at Cornell C.C, the arena seating area at Centennial C.C. and the Arena at Milliken Mills C.C.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	132,566	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	132,566	0
HST Impact:	2,333	0
Total Project Cost:	**134,900**	**0**

NOTES

Based on condition assessment of the spaces, the paint has deteriorated and requires repainting in year 2020. Cost per sq ft of paint including labour is $1.84 and 70,078 sq ft of space has been identified to be painted. $1.84 x 70,078 = $128,944. Unit cost is consistent with recent award plus inflation.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	Centennial				TOTAL	Future Phases
Operating Funded Life Cycle	134,900	0	0	0	0	0	0
TOTAL FUNDING	**134,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	3,714,300
Amount Incl HST	135,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle Statement: Centennial $80,900, Cornell $7,800, Old Unionville Library $5,500, Pingle House $8,000, Thornhill $18,700. Milliken $8,000, Crosby $6,000

2020 PROJECT FUNDING REQUEST FORM

Number: 20160

Project Cost: $51,900

Project Name: **Recreation Pool Grouting Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Recreation Services

Category: Annual

Project Mgr: Eric Ho

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual program for the repair of pool grout during the pool shut down process.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	51,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	51,000	0
HST Impact:	898	0
Total Project Cost:	**51,900**	**0**

NOTES

Every year each pool in Markham is shut down on a rotating basis for annual maintenance and repair. These funds will support the cost of repairing and replacing grout. The pool grouting is inspected during each pool's annual shutdown. The amount of work required and the specific pools will be determined during each pool shutdown. The budget amount is based on historical amounts spent. The 3-year average is $51,000. This is an annual program and funding will be requested each year. The Life Cycle Reserve Study will be adjusted accordingly in the next update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	51,900	0	0	0	0	0	0
TOTAL FUNDING	**51,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study: 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

The Life Cycle formula is the 3 year average.

2020 PROJECT FUNDING REQUEST FORM

Number: 20161

Project Cost: $94,400

Project Name: **Recreation Program Equipment Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Recreation Services

Category: Annual

Project Mgr: Eric Ho

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual program to replace City wide program/camp equipment. Items to be replaced under this program include: preschool equipment, mats, badminton and volleyball nets, learn to skate equipment, storage carts for equipment.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	92,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	92,800	0
HST Impact:	1,633	0
Total Project Cost:	**94,400**	**0**

NOTES

The 3 year average spent from the Annual Programs Equipment is $94,400. The equipment being replaced supports programs that are revenue generating.
*This is an annual program and funding is requested each year. The Life Cycle Reserve Study will be adjusted accordingly in the next update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	94,400	0	0	0	0	0	0
TOTAL FUNDING	**94,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	82,800
Amount Incl HST	94,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

The Life Cycle formula is the 3-year average.

2020 PROJECT FUNDING REQUEST FORM

Number: 20162

Project Cost: $171,000

Project Name: **Recreation Rubber Floor Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing rubber flooring in the arena at Crosby C.C and the arena at Milliken Mills C.C. The arena area consists of the lobby, the dressing rooms, the viewing area and the washrooms. There is 2,300 sqft being replaced at Crosby C.C and 5,700 sqft being replaced at Milliken Mills.C.C. Rubber flooring is specifically used in arena applications, as it is cut resistant and durable.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	168,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	168,000	0
HST Impact:	2,957	0
Total Project Cost:	**171,000**	**0**

NOTES

Existing rubber flooring was installed in 2004 at Crosby C.C and 2005 at Milliken Mills C.C. A condition assessment of the flooring indicates replacement is warranted. There is a total of 8,000 sq ft being replaced. Rubber flooring costs approximately $ 21per sq ft including labour x 8,000 sq ft = $ 168,000. Cost per unit is consistent with recent award plus inflation.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Crosby	Components: Milliken			TOTAL	Future Phases
Operating Funded Life Cycle	171,000	48,300	119,700	0	0	168,000	0
TOTAL FUNDING	**171,000**					**168,000**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,608,700
Amount Incl HST	171,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle Statement: Crosby $48,300, Milliken $119,700

2020 PROJECT FUNDING REQUEST FORM

Number: 20163

Project Cost: $457,200

Project Name: **Recreation Security System Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☑ 5 ☑ 6 ☑ 7 ☐ 8 ☑

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing security system at Armadale C.C., Cornell C.C., Angus Glen C.C., Thornhill C.C., Mount Joy C.C., Clatworthy C.C. Morgan Pool. The system is comprised of cameras, DVR and a display monitor. The replacement of the security systems will support a safe environment for staff and users. New equipment will align with new corporate security standard.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	449,250	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	449,250	0
HST Impact:	7,907	0
Total Project Cost:	**457,200**	**0**

NOTES

A condition assessment of the systems indicates that replacement is warranted. Armadale security system installed in (2006), Angus Glen (2005), Clatworthy (2008), Cornell (2012), MT Joy (2009), Thornhill (2004). The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	457,200	0	0	0	0	0	0
TOTAL FUNDING	**457,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 2,781,000

Amount Incl HST 457,200

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle Statement: Cornell $216,500, Angus Glen $136,600, Armadale $15,700, Clatworthy $10,000, Thornhill $37,500.

2020 PROJECT FUNDING REQUEST FORM

Number: 20164

Project Cost: $50,000

Project Name: **Recreation Sound System Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the sound system at Thornhill C.C. and Centennial C.C. This Sound System replacement will support City programs, public skate, ice events and figure skating academies.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	49,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	49,100	0
HST Impact:	864	0
Total Project Cost:	**50,000**	**0**

NOTES

A condition assessment of the units indicates replacement is warranted. The installation of the sound system at Thornhill (1998), Centennial (1996). The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components				Future
Funding Type	Budget	Centennial	Thornhill		TOTAL	Phases
Operating Funded Life Cycle	50,000	21,600	28,400	0	50,000	0
TOTAL FUNDING	**50,000**				**50,000**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,123,900

Amount Incl HST 50,000

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle Statement: Centennial $21,600, Thornhill $28,400

2020 PROJECT FUNDING REQUEST FORM

Number: 20165

Project Cost: $54,700

Project Name: **Recreation Tables and Chairs Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Recreation Services

Category: Annual

Project Mgr: Eric Ho

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual program to replace tables and chairs at all city wide recreation facilities.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	53,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	53,800	0
HST Impact:	947	0
Total Project Cost:	**54,700**	**0**

NOTES

The 3 year average spent on this replacement program is $53,800. Tables and chairs are equipment used to support revenue generating programs and rentals.
*This is an annual program and funding will be requested each year. The Life Cycle Reserve Study will be adjusted accordingly in the next update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	54,700	0	0	0	0	0	0
TOTAL FUNDING	**54,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 53,700

Amount Incl HST 53,800

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

The Life Cycle formula is the 3-year average.

2020 PROJECT FUNDING REQUEST FORM

Number: 20166

Project Cost: $24,900

Project Name: **Rouge River C.C. Pump and Exhaust Fan Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☑ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace exhaust fans located in the washrooms, auditorium, maintenance rooms and 3 mechanical pumps and one (1) pool pump at Rouge River C.C.

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PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	24,475	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	24,475	0
HST Impact:	431	0
Total Project Cost:	**24,900**	**0**

NOTES

All equipment installed in 1990. A condition assessment of these units indicates replacement is warranted. Rooftop exhaust fans = $6,794.12, circulation pumps = $14,900. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Exhaust Fans	Pumps	Labour		TOTAL	Future Phases
Operating Funded Life Cycle	24,900	6,575	14,900	3,000	0	24,475	0
TOTAL FUNDING	**24,900**					**24,475**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 143,100

Amount Incl HST 24,900

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Building Automation System $87k (reduced from $118.2k), Pumps $24.9k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20167

Project Cost: $10,000

Project Name: **Thornhill C.C. Filter Spa Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace two (2) spa filters within Thornhill C.C. Fitness Centre. Spa filters are used to remove dirt and debris from the pool by circulating the water through a filter median contained inside the pool filter. There are 1,216 members at the Thornhill Fitness Centre.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	9,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	9,800	0
HST Impact:	172	0
Total Project Cost:	**10,000**	**0**

NOTES

Existing spa filters were installed in 2006. A condition assessment of the system indicates replacement is warranted. The requested amount is consistent with recent staff award plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	10,000	0	0	0	0	0	0
TOTAL FUNDING	**10,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	364,700
Amount Incl HST	10,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Sound system $28.4k, Security System $37.5k, Spa Filter $10k, Rink Boards $231k (reduced from $248,880), Painting $18.7k,

2020 PROJECT FUNDING REQUEST FORM

Number: 20168

Project Cost: $210,400

Project Name: **Thornhill C.C. Rink Board and Arena Netting Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the west rink boards and arena netting in the arena at Thornhill C.C. This replacement supports providing a safe environment for arena users.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	206,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	206,800	0
HST Impact:	3,640	0
Total Project Cost:	**210,400**	**0**

NOTES

The existing rink boards were installed in 1990. A condition assessment of the system indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	210,400	0	0	0	0	0	0
TOTAL FUNDING	**210,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	364,700
Amount Incl HST	210,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Sound system $28.4k, Security System $37.5k, Spa Filter $10k, Rink Boards $231k (reduced from $248,880), Painting $18.7k,

2020 PROJECT FUNDING REQUEST FORM

Number: 20169

Project Cost: $25,900

Project Name: **Thornlea and Clatworthy Shower Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing Arena dressing room shower valves and wall tile at Clatworthy C.C. and Thornlea shower valves. The current system is comprised of six (6) shower valves and wile tiling for each shower, total of six (6) showers. Providing functioning showers for our users supports our customer service initiative.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	25,463	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	25,463	0
HST Impact:	448	0
Total Project Cost:	**25,900**	**0**

NOTES

Existing arena showers were installed in 1985. A condition assessment of the showers indicates replacement is warranted. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	25,900	0	0	0	0	0	0
TOTAL FUNDING	**25,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 6,100

Amount Incl HST 25,900

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Thornlea Deck drains $39.7k, Shower fixtures $4.9k, Clatworthy Change room Tiles and Shower Valves 21.7k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20170

Project Cost: $39,700

Project Name: **Thornlea Pool Deck Drain Piping Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Category: Minor

Project Mgr: Martin Barrow

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace existing pool deck drains at Thornlea Pool. Deck drains are used to remove water from pool deck which provides a safe deck to walk on.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	39,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	39,000	0
HST Impact:	686	0
Total Project Cost:	**39,700**	**0**

NOTES

Existing pool deck drains were installed in 1985. A condition assessment of the units indicates replacement is warranted. Cost is consistent with recent staff award plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	39,700	0	0	0	0	0	0
TOTAL FUNDING	**39,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	23,400
Amount Incl HST	39,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Deck drains $39.7k, Shower fixtures $4.92k

2020 PROJECT FUNDING REQUEST FORM

Number: 20171

Project Cost: $11,000

Project Name: **Unionville Train Station HVAC Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace one (1) HVAC system at the Unionville Train Station. HVAC system conditions air in the building providing an optimal environment for patrons.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	10,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	10,800	0
HST Impact:	190	0
Total Project Cost:	**11,000**	**0**

NOTES

Existing HVAC system was installed in 2005. A condition assessment of the unit indicates replacement is warranted.The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	11,000	0	0	0	0	0	0
TOTAL FUNDING	**11,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 20,600

Amount Incl HST 11,000

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

HVAC $11k, Flooring $11k

2020 PROJECT FUNDING REQUEST FORM

Number: 20172

Project Cost: $11,000

Project Name: **Unionville Train Station Wood Floor Refurbishment**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Scott Hill

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to refurbish wood flooring at the Unionville Train Station. The flooring is original 3" thick barn board. The nails will be countersunk manually then the floors will be resanded and refinished.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	10,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	10,800	0
HST Impact:	190	0
Total Project Cost:	**11,000**	**0**

NOTES

Existing wood flooring was installed in 1930 and is a historic item. A condition assessment of the flooring indicates refurbishment is warranted. There is 1,090 sqft of flooring being refurbished. Included in the replacement are labour, disposal and material (1,090 x 10.10 sqft = $11,000). The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	11,000	0	0	0	0	0	0
TOTAL FUNDING	**11,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	20,600
Amount Incl HST	11,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

HVAC $11k, Flooring $11k

2020 PROJECT FUNDING REQUEST FORM

Number: 20173

Project Cost: $16,700

Project Name: **Water Street Senior Centre Facility Improvements**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 30 Pre Approval: ☐

Department: Recreation Services

Project Mgr: Bob Bell

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace the flagpole and interlock patio at the Markham Senior Centre (MSC). Interlock patio is experiencing heaving issues and uneven surfaces which can be a tripping hazards to seniors using the Senior Centre.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	16,400	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	16,400	0
HST Impact:	289	0
Total Project Cost:	**16,700**	**0**

NOTES

The existing flagpole and interlock patio was installed in 1990. A condition assessment of the space indicates replacement is warranted. Interlock patio is experiencing heaving issues and uneven surfaces which can be a tripping hazards to seniors using the Senior Centre. The amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	16,700	0	0	0	0	0	0
TOTAL FUNDING	**16,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	103,400
Amount Incl HST	16,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Interlock and Flagpole $16.7k (reduced from $57k) , Ceiling Tile $40.4k (deferred), Dishwasher $6k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20174

Project Cost: $55,000

Project Name: **Customer Service Improvement (E-Resources)**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 7 Pre Approval: ☐

Department: Markham Public Library

Category: Minor

Project Mgr: Catherine Biss

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To support the purchase of additional e-books and digital audiobooks, which are in very high demand and whose circulation increased by 50% in 2018. Publishers' utilization of restrictive service models and high pricing continues to jeopardize the ability of Canadian public libraries to provide universal access to content. While the City of Markham recognized this issue by providing additional support for the purchase of e-resources (2015-2019), the Library Board is requesting a continuation of that support as the issues remain unresolved. The pricing issue with eBooks continues to be a huge issue for libraries in providing equitable access to books for the community. The Canadian Urban Libraries campaign "Accessing Digital Publications" has been launched to extend public library outreach to municipal and federal political leaders in an effort to attract attention, gain public support, and advocate for solutions that can assist public libraries in accessing digital publications.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	54,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	54,000	0
HST Impact:	950	0
Total Project Cost:	**55,000**	**0**

NOTES

The cost of eBooks can be 5 times that of print books, which average $29 per item. The lower value of the CAD has impacted MPL's ability to purchase eBooks, which are priced in USD. This combination of escalating demand and high cost reinforces the need for additional funding. Project cost of $54,000 is based on $40K USD at an exchange rate of 1.35

Life-cycle impact: The materials require replacement 3 times over 25 years (based on 7-year useful life) at $158,400.

SOURCE(S) OF FUNDING ($)		Components					Future
Funding Type	Budget	E-resources				TOTAL	Phases
Tax	55,000	55,000	0	0	0	55,000	0
TOTAL FUNDING	**55,000**					**55,000**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	
Amount Incl HST	
Year in the study	

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20175

Project Cost: $19,300

Project Name: **Heritage Garbage Enclosure (Unionville Library)**

New Asset/Expansion

Commission: Community & Fire Services

Department: Markham Public Library

Project Mgr: Jason Vasilaki

Useful Life: 15 Pre Approval: ☐

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Purchase & installation of a new heritage enclosure to better manage numerous garbage and recycling containers used by the Library. Currently, garbage and recycling containers are lined up along the laneway outside of the building. Project will address local needs through facility improvement, enhanced property appearance that is consistent with community standards, and reduced vandalism.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	19,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	19,000	0
HST Impact:	334	0
Total Project Cost:	**19,300**	**0**

NOTES

To be located at southeast corner of building to house multiple garbage and recycling containers. Current situation has generated complaints from adjacent residential property owners and is vulnerable to vandalism. Insufficient space inside building to house these containers. Include permit/grading ($3K), granular base/slab on grade ($6K), enclosure supply ($4K) and installation ($6.3K). Estimates provided by Asset Management.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	Enclosure supply	Installation	Permit/grading	Slab/granular base	TOTAL	Future Phases
Tax	19,300	4,000	6,300	3,000	6,000	19,300	0
TOTAL FUNDING	**19,300**					**19,300**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20176

Project Cost: $2,796,600

Project Name: **Library Collections**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 7 Pre Approval: ☑

Department: Markham Public Library

Project Mgr: Catherine Biss

Category: Annual

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Collections are the Library's main product and are used heavily by the public, which expects currency. This requires ongoing acquisition of new materials, including those in print and non-print formats and non-English language materials, which are in high demand in Markham. In a 2016 survey of 1,400 residents, 97% indicated that it was important that MPL provides books and valued borrowing materials as the #1 Library service.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	2,748,208	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	2,748,208	0
HST Impact:	48,368	0
Total Project Cost:	**2,796,600**	**0**

NOTES

Preliminary allocations (incl. processing): Books & Subscriptions $970K/ Audio-visual $365K/ French $25K/ Multilingual $300K/ Microfilms $3.6K/ Periodicals $100K/ Electronic Resources $760K/ Processing Supplies $230K. Figures subject to revision based on material availability, customer needs & final Library review. 25% of funding (excl. processing costs) devoted to non-English materials (i.e. Multilingual, French). Cost for replacement of existing E-Resources (when invoiced in USD) based on exchange rate of 1.35. The pre-approval request is $1,598,200.

SOURCE(S) OF FUNDING ($)		Components					Future
Funding Type	Budget	Collection				TOTAL	Phases
Operating Funded Life Cycle	2,796,600	2,796,600	0	0	0	2,796,600	0
TOTAL FUNDING	**2,796,600**					**2,796,600**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	2,753,400
Amount Incl HST	2,796,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

The life cycle amount is based on the latest Library collections contract and is consistent with the 2019 Life Cycle Reserve Study; USD exchanged rate updated from 1.30 to 1.35 based on June 2019 forecast.

2020 LIBRARY COLLECTIONS CAPITAL BUDGET SUBMISSION - SUPPORTING INFORMATION

The Library's Business Model for Material Selection:
MPL's business model for material selection is designed to achieve the following outcomes:

- Strong ROI on funding dollars, respecting the tax-payer's investment in library services;
- Strong library collections as a fundamental element in library service;
- Leveraging outsourcing of materials processing, cataloguing and selection in order to reduce staffing costs;
- Anticipating and meeting customer needs as determined by analysis of data regarding usage, trends and consumption of content, and broader trends in the publishing, retail, and public sectors;
- Alignment with the diversity of Markham's socio-demographic structure including age cohorts, language needs and preferences, and learning and leisure pursuits;
- Sector leading performance in Key Performance Indicators, including circulation per capita, collection turnover, materials as percentage of total expenditures, and visits per capita;
- Efficient use of funding dollars through a system wide approach to selection, eliminating overlap and duplication amongst the branches;
- Leveraging of alternative sources of content (i.e. online content and interlibrary loan) to satisfy long tail (non-mainstream) needs;
- High levels of use through aggressive targets for percentage of materials checked out at any given time. We want library materials to be in the hands of customers, enriching lives, supporting education and developing a stronger, more literate workforce.

Depth and Breadth of Library Materials:
Like all public library systems in Canada, MPL's collection policy defines the library mandate to meet the diverse information and knowledge needs of Markham residents through a collection that provides an appropriate balance of depth and breadth; meeting anticipated and expressed individual and community needs.

- **Bestsellers vs. Backlist**: Like bookstores, library "stock" includes both current bestsellers and backlist (older books still in print) items that are in demand by library customers
    - Backlist would include materials such as classics of children's literature
        - Classic board books and picture books for babies and pre-schoolers (*Goodnight Moon, Brown Bear, Brown Bear, What Do You See*?)
        - Series fiction for school aged children (*Diary of a Wimpy Kid, Dork Diaries, Geronimo Stilton*, etc.)
        - Classic children's fiction for school aged children (*Harry Potter*, *Anne of Green Gables, Treasure Island*)
        - Curriculum related materials (children's non-fiction books on Lands & People, Science, Technology and Math, Social Studies, etc.)
    - Backlist materials for teens such as popular teen fiction series and classics
        - Popular teen fiction (*Twilight, Divergent, The Hunger Games, The Giver*, etc.)\
        - Curriculum related non-fiction (materials to support Independent Study Units)
        - Classic literature (Margaret Atwood, William Shakespeare, Harper Lee, William Golding, F. Scott Fitzgerald, etc.)
    - Backlist materials for adults such as classic literature, series fiction and non-fiction
        - Backlist of popular authors (James Patterson, Sue Grafton, Stephen King)

        - Backlist non-fiction (Health & Wellness, Travel, Food & Drink, Business and Financial Investments, Computers, Home & Garden, etc.)
        - Genre fiction (Romance, Mysteries, Horror, Fantasy, etc.)
    - Backlist materials for senior adults
        - Large print (popular fiction and non-fiction titles)
        - Audiobooks
- **Linguistic Diversity:** An additional challenge for Markham, in the context of the City's high level of linguistic diversity, is to allocate adequate funding to the demand for multilingual materials in each service area.
- **Customer Purchase Suggestions:** Appropriate response to purchase suggestions by Markham residents where they meet the Library's selection criteria including ensuring that the item would be of interest of other Markham residents.
- **Fiscal Responsibility**: Our collection policy excludes purchasing niche or scholarly materials, ensuring that MPL"s collection appeals to the general public and not for niche interests (we try to meet these needs through Interlibrary Loans or online databases).

ESTIMATED BUDGET BREAKDOWN

Books & Subscriptions	$970,000
Audiovisual	$365,000
French Books	$25,000
Multilingual	$300, 000
Microfilms	$3,300
Periodicals	$100,000
eResources	$732,000
Processing & Supplies	$229,000

CIRCULATION IN 2018 VS 2017

Circulation	**2018**	**2017**	***%+/-***
Physical Circulation	4,905,019	4,490,568	***9.2***
Digital Circulation (eCirc)	555,728	370,779	***49.9***
Total Circulation (incl. eCirc)	5,460,747	4,861,347	***12.3***

CUSTOMER SATISFACTION WITH COLLECTIONS:

- The number one reason for Markham residents using the library is for its collection as they continuously state in all surveys. As you can see from the chart below, our customer expectations of the content MPL provides exceeds their actual satisfaction with the collection.

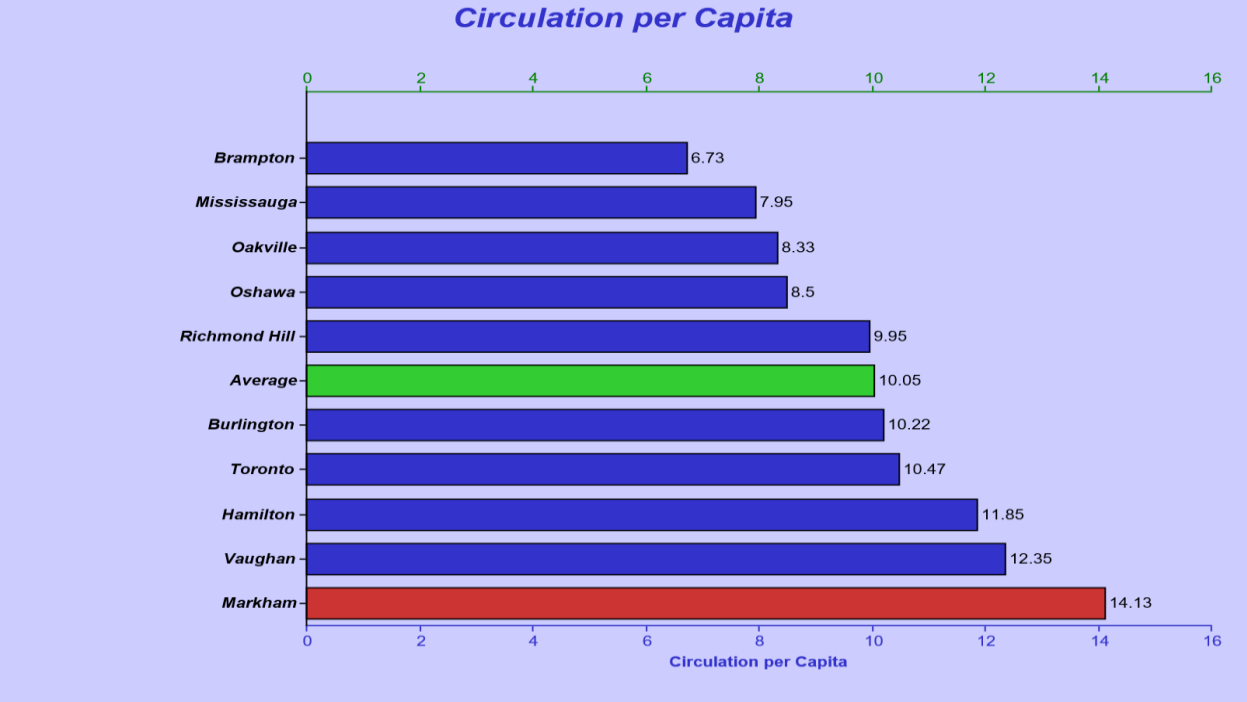
Performance Indicator	**2018**
Importance	9.26/10
Satisfaction	7.88/10
Gap	**1.38**

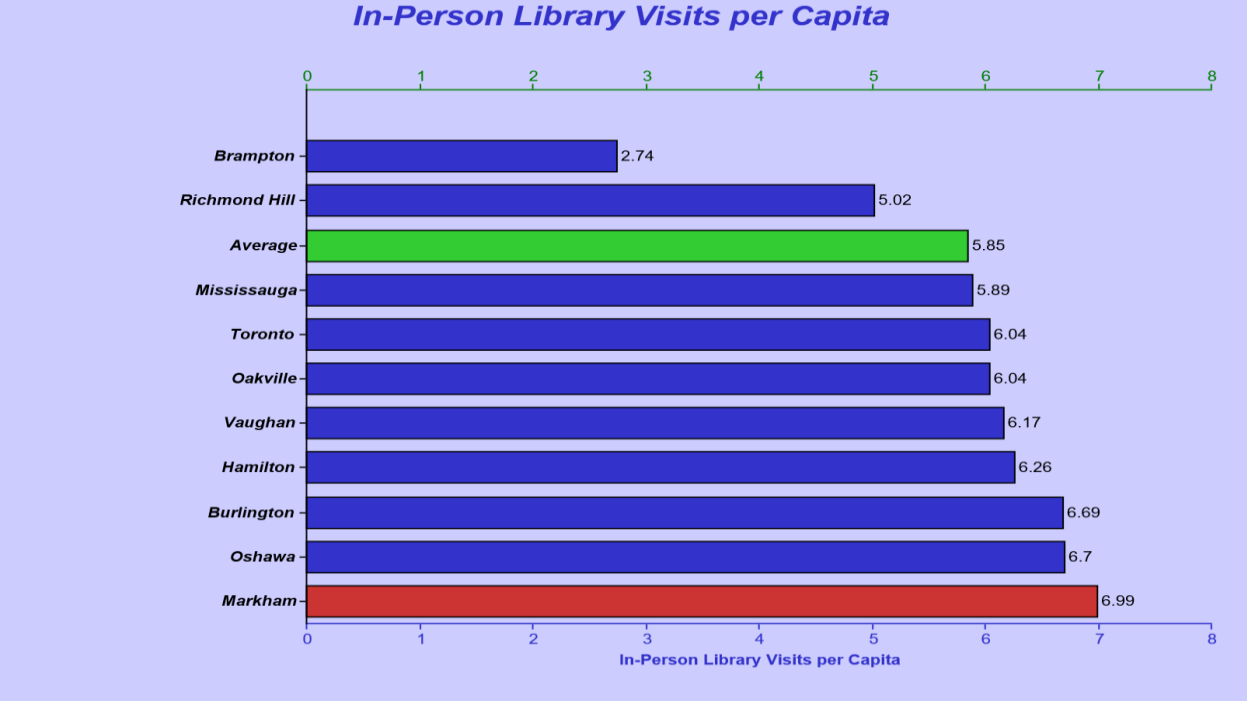
LANGUAGES COLLECTED:

- English, French, Arabic, German, Greek, Gujarati, Hebrew, Hindi, Italian, Korean, Persian, Panjabi, Russian, Spanish, Tagalog, Tamil, Urdu, and Chinese.

KEY PERFORMANCE INDICATORS

(Based on the latest 2017 statistics submitted to Ontario Ministry by Public Libraries)





2020 PROJECT FUNDING REQUEST FORM

Number: 20177

Project Cost: $143,800

Project Name: **Library Furniture, Equipment & Shelving Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 7 Pre Approval: ☐

Department: Markham Public Library

Category: Annual

Project Mgr: Catherine Biss

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To replace furniture/shelving that is broken and/or in poor condition due to heavy usage in MPL branches. Required to maintain library facilities and operations. The public library is a high use municipal service that is valued by the community and helps make Markham a highly attractive place in which to live, work and study.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	141,331	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	141,331	0
HST Impact:	2,487	0
Total Project Cost:	**143,800**	**0**

NOTES

This is an annual program and funding will be requested each year. The 2020 project will be used for replacement of public-facing furniture and loose furniture purchases for various locations ($43.8K), staff area furniture ($45K), program/study rooms ($20K), mobile shelving ($35K). 3 year average spend plus CPI is $143.8k. This amount is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	Furniture	Shelving			TOTAL	Future Phases
Operating Funded Life Cycle	143,800	108,800	35,000	0	0	143,800	0
TOTAL FUNDING	**143,800**					**143,800**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 143,800

Amount Incl HST 143,800

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20178

Project Cost: $71,200

Project Name: **Markham Centre Library - Phase 1 of 2**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☐

Department: Markham Public Library

Category: Minor

Project Mgr: Catherine Biss

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Conduct a feasibility and functional study and a community consultation process to determine the location, and size of a Library for Markham Centre which was recommended in the 2010 ILMP.
The City will be undertaking a new provision model for community facilities within high density areas of the City and this project will enable staff to explore partnership opportunities to undertake the new Neighbourhood Centre starting in Markham Centre. The consultant will assist with exploring appropriate square footage needed for the new model for library and recreation services. The work will also involve consultation with current residents within Markham Centre on functions, locations and services.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	70,000	70,000
Sub Total:	70,000	70,000
HST Impact:	1,232	1,232
Total Project Cost:	**71,200**	**71,200**

NOTES

Total cost for Phase 1 and 2 is $140,000. Cost is based on number of architectural consultant hours allocated to the southeast community consultation multiplied by consultant's hourly rate. Approximate hourly rate of consultant is $214, and approximate number of consultant hours for this 2 year project is 656.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Consulting				TOTAL	Future Phases
DCA	64,080	64,080	0	0	0	64,080	64,080
Non-DC Growth	7,120	7,120	0	0	0	7,120	7,120
TOTAL FUNDING	**71,200**					**71,200**	**71,200**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	
Amount Incl HST	
Year in the study	

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Subject Title: **2020 Capital Budget Submission - Markham Centre Library, Phase 1 of 2**

Purpose/Background

To provide preliminary information regarding Markham Public Library's request for capital funding to conduct a feasibility and functional study and a community consultation process to determine the location, and size of a Library for Markham Centre which was recommended in the 2010 ILMP. The City will be undertaking a new provision model for community facilities within high density areas of the City and this project will enable staff to explore partnership opportunities to undertake the new Neighborhood Centre starting at Markham Centre. The consultant will assist with exploring appropriate square footage needed for the new model for library and recreation services. The work will also involve consultation with current residents within Markham Centre on functions, locations and services.

Discussion

1. The 2010 Integrated Leisure Master Plan included the following recommendation:

   71D: Establish a library branch (approximately 20,000 ft²) to serve the growing Markham Centre community (Area A) in or around 2019. This branch may form part of a mixed-use development; partnership and non-traditional development approaches should be considered.

   Recommended direction of the draft 2019 ILMP Update is to develop different provision models with a focus on integration with other service providers and within development plans early in the process to capitalize on cost sharing opportunities.

2. The 2017 Development Charges Background Study identified a funding amount of **$13,962,160** (DC Eligible Cost) for a **20,000 sq. ft**. public library in Markham Centre in **2021**.

History:

1. Meetings with Planning Department throughout , 2018/2019
   Over the course of the development of the 2019 ILMP meetings were held with Planning staff, Markham Public Library and Community & Fire Services regarding opportunities for a Markham Centre library facility and co-located flexible space for other community services

   Planning staff identified potential opportunities in upcoming phases/development blocks of Markham Centre's Mixed-Use developments near the Birchmount/Enterprise intersection.

2. Meeting with Planning Department and Remington Group 2018
   Planning staff organized a meeting with representatives of Remington Group to discuss opportunities for a library / community space within one of their buildings. Remington was keen to work with the City and proposed a location for a 9,000 sf ground-level library branch on the southwest corner of the intersection of the future Post Road and Simcoe Promenade. Timing for the completion of the Remington building was anticipated for 2023.

   Site Analysis:
   The following site benefits were discussed:
   - Close proximity to mixed-use developments would allow the library to serve both residents and the business community in Markham Centre.

- A VivaNext station will be located on Simcoe Promenade directly outside the proposed library space, supporting access by public transportation.
- The location supports the achievement of a walkable "complete community" by adding a public service facility to the mix of jobs, local stores and services in Markham Centre, thereby providing opportunities for people of all ages and abilities to conveniently access most of the necessities for daily living.
- Located on a busy pedestrian street, and at ground level, to be highly visible and easily identifiable from the street, and to contribute to street-level activity and vibrancy.

3. Alignment of the ILMP to the Secondary Planning Process for Markham Centre.
   Staff discussed aligning the Markham Centre Secondary Plan process that commenced in 2018 to ILMP Update that was to be completed by end of 2018. Planning & CFS agreed to work on a collaborative process to guide the provision of parks, recreation and library facilities in Markham's Areas of Intensification. Based on the timing of these parallel processes, staff discussed the need to focus on the upcoming Markham Centre Secondary Plan, i.e. to advance the ILMP principles regarding Areas of Intensification through their development as part of the Secondary Plan revision and determine innovative approaches and policies to guide the future delivery of community services in Markham's urban areas. This could be a potential case study within the overall framework of the ILMP and the Secondary Plan process.

<u>Rationale for Project:</u>

The 11,000 residents currently living in the 4,618 households (typically small condo units) of the high-density Markham Centre area do not currently have access to any walkable, accessible, inclusive indoor all-season public community space (e.g. space for community gathering, community meetings, etc.). This results in low levels of social interaction with neighbours, hinders the development of community cohesion, diminishes resident retention and stability, and potentially elevates risks of social isolation.

Potential components of library space program to address above:

- Family space for the 1,300 children aged 0 to 14 living in Markham Centre and their caregivers. A place for early literacy development and homework support.
- Meeting/social space for the 79.84% of households residing in apartment buildings.
- Study/social space for the students (including many international students) residing in Markham Centre.
- Informal, drop-in, casual gathering and meeting space for all ages.
- Digital collaboration hub.
- Components to be tested/validated/modified through the community consultation process.
- Implementation in Markham Centre of the strategic direction contained in Building Markham's Future Together (BMFT) Goal 2 - Engaged, Diverse and Thriving City (Strategic Objectives 2.1 Increasing Community Engagement; and 2.2 Ensuring Markham is Welcoming and Inclusive) for the Markham Centre neighbourhood.
- It represents an investment in the social infrastructure required to keep the City strong, livable and a great place to live, work, learn, play and invest. It also contributes to quality of life that attracts and retains diverse and talented residents, supports a community-wide commitment to lifelong learning, and advances Markham's future prosperity in the rapidly growing creative and knowledge-based economy.
- The project implements 2010 approved Integrated Leisure Master Plan (ILMP) recommendation 71d. "Establish a library branch (approximately 20,000 ft²) to serve the growing Markham Centre community (Area A) in or around 2019. This recommendation was also included in the 2019 ILMP Update with the focus on partnership and non-traditional development approaches.

Capital Project Scope - Two-year project:

- 2020: Two key components:
  - Conduct a comprehensive community consultation process to confirm and ensure the space needs meet the needs of this community within the context of a vibrant downtown area. Identify needs and priorities for residents living and working within Markham Centre. What are their expectations for community services including preferences for where it should be located.
  - To secure a location working with the development community that aligns to the ILMP's new neighbourhood centre approaches that are fully integrated into the built form of an urban focused neighbourhood embedded within where residents live and work. .
- 2021: Develop concept design options based on work done in 2020 and following the confirmation of a final location.

Distributed To:	Brenda Librecz, Jemima Lee
Prepared By:	Michelle Sawh
Contact Person	Catherine Biss
Date Prepared:	August 22, 2019
Approved By:	Catherine Biss

Template last revised: 2012-Oct-17

2020 PROJECT FUNDING REQUEST FORM

Number: 20179

Project Cost: $6,873,800

Project Name: **Asphalt Resurfacing**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Operations - Roads

Category: Minor

Project Mgr: Zoyeb Vahora

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Asphalt resurfacing of roads throughout the City utilizing a pavement management program to select rehabilitation candidates. The overall goal is to maintain an acceptable pavement condition index and user satisfaction by implementing cost effective strategies designed to extend pavement life and reduce overall maintenance costs of the road network. Other work includes interlock, material testing, route and seal, steel, and AC index. Various strategies are utilized on a site specific basis to reach program goals.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	6,667,470	0
Internal Charges:	89,002	0
External Consulting:	0	0
Sub Total:	6,756,472	0
HST Impact:	117,347	0
Total Project Cost:	**6,873,800**	**0**

NOTES

Asphalt Resurfacing of approximately 19km of two lane and four lane roads. 9km of two lane roads of pavement preservation which is comparable to last year's program. There is no substantial backlog in this program. Laser condition survey conducted bi-annually indicates 2017 pavement condition result shows that 74% of the road network is deemed good or better (target = 80%). Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
	0	0	0	0	0	0	0
Gas Tax	6,873,800	0	0	0	0	0	0
TOTAL FUNDING	**6,873,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

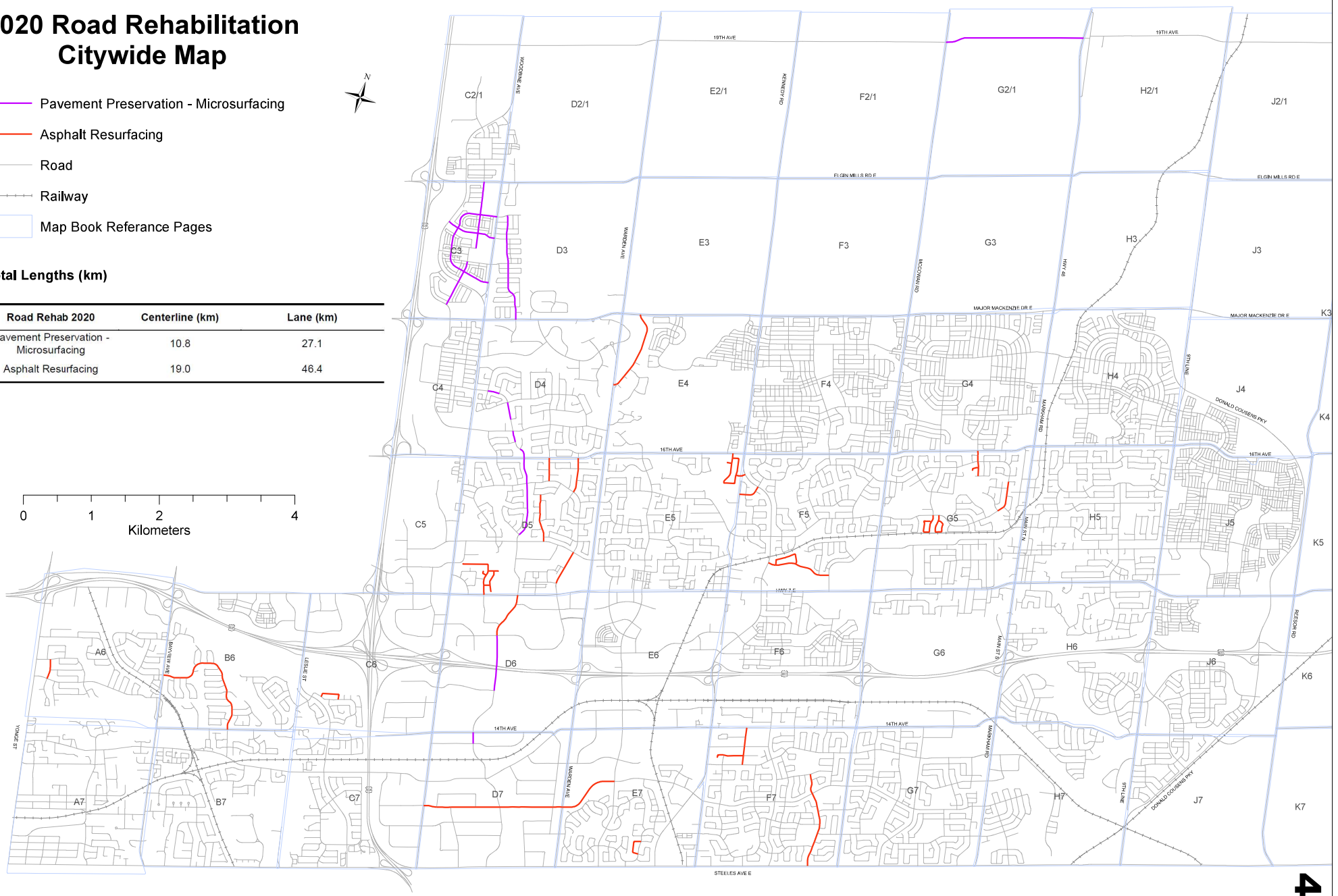
Project	Asphalt Resurfacing
2020 Capital Request	$6,873,800
Funding Source	Life Cycle Reserve
Description of Program	Asphalt resurfacing of roads throughout the City utilizing a pavement management program to select rehabilitation candidates. The overall goal is to maintain an acceptable pavement condition index and user satisfaction by implementing cost effective strategies designed to extend pavement life and reduce overall maintenance and reconstruction costs of the road network.
Project Rationale	Condition assessment is conducted bi-annually to determine specific locations. This is followed by a detailed visual inspection by Operations staff which verifies the laser condition assessment. Identified in the Life Cycle Reserve Study.
Legislative Requirement	O. Reg. 239/02: Minimum Maintenance Standards for Municipal Highways outlines patrol and maintenance requirement related to roadway infrastructure inclusive of asphalt pavement and sidewalk.
History	$460K was added to the 2019 life cycle study for 2020 AC Index premium due to forecasted increase to the Asphalt Cement Index for 2020. $265K and $350K were added to the 2018 and 2019 Asphalt Resurfacing Programs respectively for the higher than anticipated AC premiums. The asphalt resurfacing contract will be renewed in 2021, at which point a new base will be established for the AC premium calculation.
Future Phases	This funding is requested each year.
Total Project Cost	n/a
Related Projects	Parking Lot Rehabilitation, Localized Repairs – Concrete/Asphalt
Alignment to the Strategic Plan	Properly paved and well maintained roads help reduce accidents and promotes safe movement of traffic reducing traveling time. Contracts within this program call for reharvesting and recycling of construction materials. Strategies include warm mix designs which lowers emissions and utilizes recycled aggregate.

2020 Road Rehabilitation Citywide Map

- Pavement Preservation - Microsurfacing
- Asphalt Resurfacing
- Road
- Railway
- Map Book Reference Pages

Total Lengths (km)

Road Rehab 2020	Centerline (km)	Lane (km)
Pavement Preservation - Microsurfacing	10.8	27.1
Asphalt Resurfacing	19.0	46.4



Plot Date: 7/12/2019

Road Rehabilitation Program
Concrete / Asphalt Resurfacing
Pavement Preservation – Micro Surfacing
Crack Sealing

2020 – Proposed	
Road Rehabilitation – Asphalt/Concrete	46.4 Lane Kilometers
Pavement Preservation – Micro Surfacing	27.1 Lane Kilometers
Crack Sealing	158,165 Lineal Meters

2019 – Estimated	
Road Rehabilitation – Asphalt/Concrete	38 Lane Kilometers
Pavement Preservation – Micro Surfacing	37 Lane Kilometers
Crack Sealing	158,165 Lineal Meters

2018 – Complete	
Road Rehabilitation – Asphalt/Concrete	43.4 Lane Kilometers
Pavement Preservation – Micro Surfacing	15 Lane Kilometers
Crack Sealing	127,000 Lineal Meters

2017 - Complete	
Road Rehabilitation – Asphalt/Concrete	39 Lane Kilometers
Pavement Preservation – Micro Surfacing	25 Lane Kilometers
Crack Sealing	114,000 Lineal Meters

2020 PROJECT FUNDING REQUEST FORM

Number: 20180

Project Cost: $57,300

Project Name: **Boulevard Repairs**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Operations - Roads

Category: Annual

Project Mgr: John Hoover

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

The purpose of this project is to maintain boulevard areas in good condition to minimize hazards for pedestrians. Repairs to boulevards throughout the City are for interlock brick pavers only (does not include concrete, curb or asphalt).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	56,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	56,300	0
HST Impact:	991	0
Total Project Cost:	**57,300**	**0**

NOTES

Repairs include speedbumps on Featherstone, Raymerville, Harvest Moon and Riseborough. Centre island on Royal Orchard and Fred Varley, Main Street to Jeremy. Installation cost is $42.03/m2. 2 yr average is $55K (there was not a program in 2016). This is an annual program. There is no substantial backlog within this program and the boulevards are in a state of good repair.
Unit cost is consistent with recent award plus inflation.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Speed Humps	Fred Varley			TOTAL	Future Phases
Operating Funded Life Cycle	57,300	12,700	44,600	0	0	57,300	0
TOTAL FUNDING	**57,300**					**57,300**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	57,300
Amount Incl HST	57,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20181

Project Cost: $25,300

Project Name: **Bridge Structure Preventative Maintenance - Roads**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 30 Pre Approval: ☐

Department: Operations - Roads

Category: Annual

Project Mgr: John Hoover

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual preventative maintenance of the 27 City owned bridge/culvert structures on an as required basis. Work to be carried out on an as required basis which includes fill and grade bridge approaches, route and seal cracks on bridge decks, concrete sealer application, concrete patches on approach.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	24,850	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	24,850	0
HST Impact:	437	0
Total Project Cost:	**25,300**	**0**

NOTES

3 yr avg $26k. Locations to be determined upon condition assessment. Bridge structures are in a state of good repair. Operations is responsible for preventative maintenance on bridges/culverts such as minor grading, patching, sealing of bridge approaches and bridge decks, while Environmental Services is responsible for its inspection/rehabilitation and replacement. Starting 2018, this project is split into 2 separate projects, one in Roads and the other in Parks. Amount requested is consistent with the 2019 Life Cycle Reserve Study update

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components				TOTAL	Future Phases
Operating Funded Life Cycle	25,300	0	0	0	0	0	0
TOTAL FUNDING	**25,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	50,600
Amount Incl HST	25,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Starting 2018, this project is split into 2 separate projects, one in Roads and the other in Parks. Project request amount of $25,300 is sufficient to carry out the work that is required.

2020 PROJECT FUNDING REQUEST FORM

Number: 20182

Project Cost: $280,800

Project Name: **City Owned Entrance Feature Rehabilitation/Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Operations - Roads

Category: Annual

Project Mgr: Stephen Dearborn/Area Supervisor

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Maintenance and repair of entrance features based on condition assessment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	275,900	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	275,900	0
HST Impact:	4,856	0
Total Project Cost:	**280,800**	**0**

NOTES

Locations for 2020 are Barristers Court and Bayview, Carlton and Mansfield, Canning Court and 14th Ave, Markham Road and Bur Oak, Kennedy Rd and Angus Glen, and Major Mackenzie and Jennings Gt. The City owns 144 features, there are 170 known to be located on private property with the remaining 17 of uncertain ownership for a total inventory of 331. Staff will be presenting a report in Q4 2019 to address replacement, rehabilitation and shared costs if applicable.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components				TOTAL	Future Phases
Operating Funded Life Cycle	280,800	0	0	0	0	0	0
TOTAL FUNDING	**280,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	280,800
Amount Incl HST	280,800
Year in the study	2020

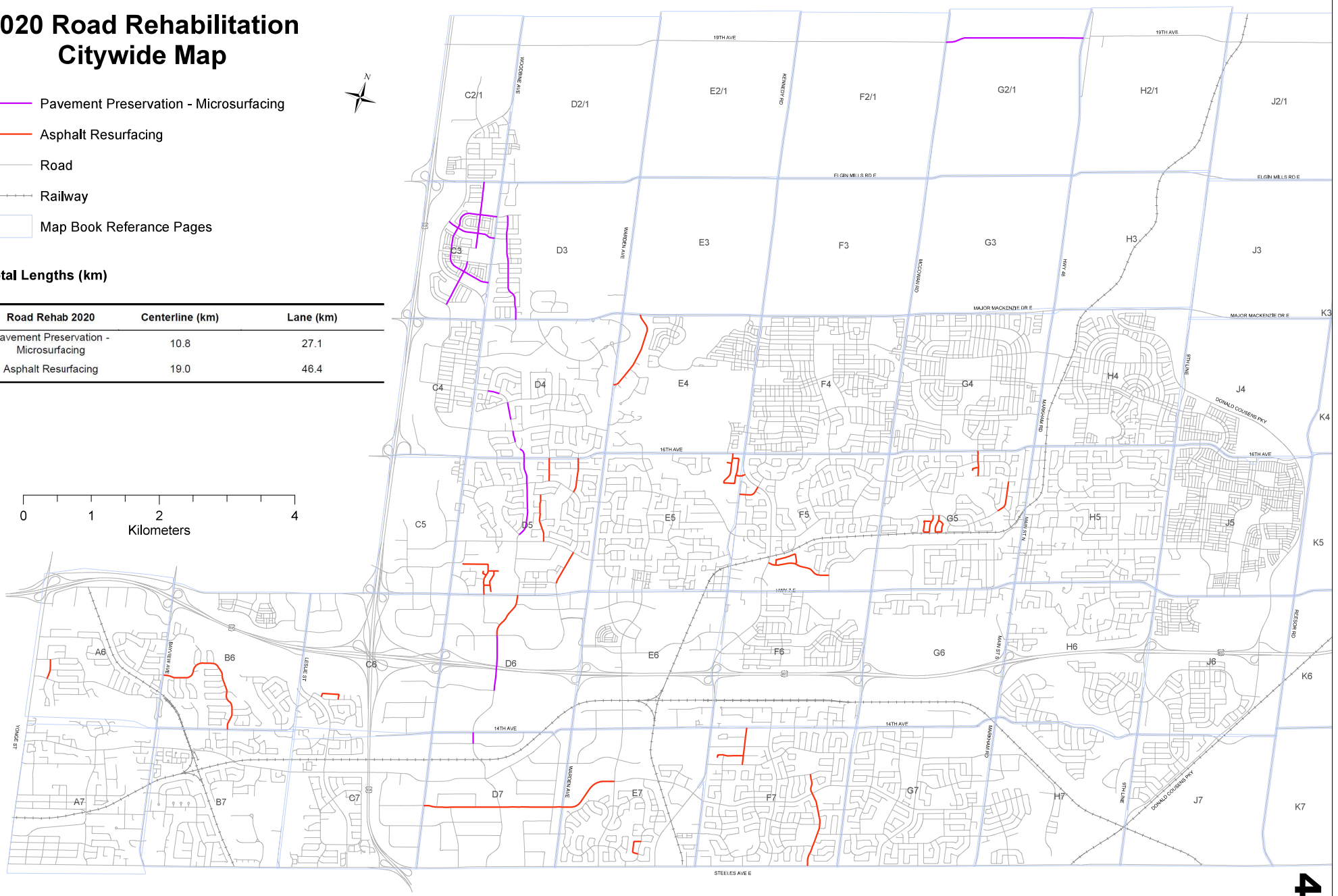
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 Road Rehabilitation Citywide Map

- Pavement Preservation - Microsurfacing
- Asphalt Resurfacing
- Road
- Railway
- Map Book Reference Pages

Total Lengths (km)

Road Rehab 2020	Centerline (km)	Lane (km)
Pavement Preservation - Microsurfacing	10.8	27.1
Asphalt Resurfacing	19.0	46.4



Plot Date: 7/12/2019

2020 PROJECT FUNDING REQUEST FORM

Number: 20183

Project Cost: $128,800

Project Name: **City Owned Fence Replacement Program**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 25 Pre Approval: ☐

Department: Operations - Roads

Category: Minor

Project Mgr: John Hoover

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To remove and replace failing fence locations throughout the City on City owned property.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	126,600	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	126,600	0
HST Impact:	2,228	0
Total Project Cost:	**128,800**	**0**

NOTES

2020 locations include;
Bullock from Laidlaw to Jug Lane - Wood (317lm)
Fire Hall 96 - Wood (55lm)
Apple Creek Handrail-Galvanized Steel (16lm)
Wetherby Circle along John Street - Wrought Iron (20lm)
Apple Creek Park - Wrought Iron (26.5lm)
This is an annual program. There is no backlog in this program and the fences are in a state of good repair.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	128,800	0	0	0	0	0	0
TOTAL FUNDING	**128,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	128,800
Amount Incl HST	128,800
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20184

Project Cost: $15,000

Project Name: **Don Mills Storm Channel**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 1 Pre Approval: ☐

Department: Operations - Roads

Category: Annual

Project Mgr: Robert O'Hara

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Storm channel is located east of Woodbine between Steeles and John Street. Remove overgrowth, vegetation and debris from storm channel to ensure proper storm water conveyance. Program will include periodic clean-up of debris, garbage and excess vegetation found in the channel. It will also include channel maintenance after large storm events, and in response to dumping.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	14,741	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	14,741	0
HST Impact:	259	0
Total Project Cost:	**15,000**	**0**

NOTES

To support ongoing annual maintenance. 3 yr average is $15k. This is an annual program. 2 site visits per year in July/Oct. Operations is responsible for minor above ground maintenance on the Don Mills storm channel such as debris and vegetation removal while Environmental Services is responsible for its flood reduction strategies and implementation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	15,000	0	0	0	0	0	0
TOTAL FUNDING	**15,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	19,800
Amount Incl HST	15,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Request reduced based on 3-year average spend.

2020 PROJECT FUNDING REQUEST FORM

Number: 20185

Project Cost: $174,000

Project Name: **Emergency Repairs**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Operations - Roads

Category: Annual

Project Mgr: Bob O'Hara

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Emergency repairs to guiderails, guide cable, storm sewers, entrance features, outfalls, inlets, and cross connections as required. These repairs could be necessary due to motor vehicle accidents, winter maintenance, and damage from storm water or pipe/road failures.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	171,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	171,000	0
HST Impact:	3,010	0
Total Project Cost:	**174,000**	**0**

NOTES

Examples of work done in previous years; Storm Sewer Repairs - 20 Heritage, 12 Vanwood, Silver Aspen, Main Street Markham, and Main Street Unionville- 3yr avg $174K. This is an annual program. Requesting additional $58,400 in 2020 to bring funding up to 3 year average of $174k.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	174,000	0	0	0	0	0	0
TOTAL FUNDING	**174,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	114,600
Amount Incl HST	174,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Requesting additional $58,400 to bring funding up to 3 year average of $174k.

2020 PROJECT FUNDING REQUEST FORM

Number: 20186

Project Cost: $114,800

Project Name: **Guiderail- Install/Repair/Upgrade**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Operations - Roads

Category: Minor

Project Mgr: John Hoover

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Install new or repair/upgrade existing guiderail to meet new Provincial Standards and minimize maintenance. Program ensures that the City maintains safe roadways for users.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	112,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	112,800	0
HST Impact:	1,985	0
Total Project Cost:	**114,800**	**0**

NOTES

153 locations identified in inventory. Guiderails are upgraded to meet standards only when they are due for replacement or if they require emergency repairs. 8 locations to be completed this year. To date, 50 locations have been upgraded to the Provincial Standard. There is no substantial backlog in this program. This is year 3 of 10 year program during which time the remaining locations will be upgraded.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	114,800	0	0	0	0	0	0
TOTAL FUNDING	**114,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	114,800
Amount Incl HST	114,800
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 - Guiderail - Install/Repair/Upgrade

Continuity Schedule

	# of locations	
Total Inventory	153	(A)
Upgrades completed to date	50	(B)
2019 program	8	(C)
Remaining	**95**	(D) = (A - B - C)

2020 Guiderail Locations

Kirk Dr. @ Park on the north side
Kirk Dr. @ Park on the South Side
Denison St. east of Warden Ave.
Pinevale Rd
Reesor Rd North of Steeles
Sarah Jane Ct
Vanessa Rd
Langstaff Rd. west of Bayview Ave.

2020 PROJECT FUNDING REQUEST FORM

Number: 20187

Project Cost: $450,000

Project Name: **Incremental Growth Related Winter Maintenance Vehicles**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☐

Department: Operations - Roads

Category: Annual

Project Mgr: Raymond Law

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Development Charge (DC) funding for additional growth-related winter maintenance vehicles purchased by contractors. If winter maintenance was done in-house, these vehicles would need to be purchased by the City, so this request is to obtain DC funding to offset a portion of the capital cost included in the winter maintenance paid through Operating accounts.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	450,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	450,000	0
HST Impact:	0	0
Total Project Cost:	**450,000**	**0**

NOTES

Amount requested is as per the 2017 DC Study.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	450,000	0	0	0	0	0	0
TOTAL FUNDING	**450,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20188

Project Cost: $859,200

Project Name: **Localized Repairs - Curb & Sidewalk**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Operations - Roads

Category: Annual

Project Mgr: John Hoover

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Maintenance repairs to sidewalks, curbs, and catch basins throughout the City as identified by staff. Ensure that deficient sections are repaired to minimize trip and fall incidents and reduce associated liability to the City. The purpose of concrete curb is to channel storm water into the storm sewer system.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	844,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	844,300	0
HST Impact:	14,860	0
Total Project Cost:	**859,200**	**0**

NOTES

Specific locations to be determined upon completion of condition audit in 2019. To normalize the concrete sidewalk maintenance program, life cycle reserve study is updated in 2019 to reflect an annual increase of $300,000 based on historical data and inspection result.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components				
Funding Type	Budget	Regular Program	Backlog		TOTAL	Future Phases
Operating Funded Life Cycle	859,200	0	0	0	0	0
TOTAL FUNDING	**859,200**				**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	976,000
Amount Incl HST	859,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Project	Localized Repairs – Curb and Sidewalk
2020 Capital Request	$859,200
Funding Source	Life Cycle Reserve
Description of Program	Maintenance repairs to sidewalks, curbs, mulit-use paths (MUP) and catch basins throughout the City as identified by staff through road patrol. Ensure that deficient sections are repaired to minimize trip and fall incidents and reduce associated liability to the City. The purpose of concrete curb is to channel storm water into the storm sewer system.
Project Rationale	Addresses minor repair locations of curb, sidewalk, MUP failures in order to extend the Life Cycle. Identified in the Life Cycle Reserve Study.
Legislative Requirement	O. Reg. 239/02: Minimum Maintenance Standards for Municipal Highways outlines patrol and maintenance requirement related to roadway infrastructure inclusive of asphalt pavement and sidewalk.
History	n/a
Future Phases	This funding is requested each year.
Total Project Cost	n/a
Related Projects	Localized Repairs Concrete/Asphalt, Asphalt Resurfacing
Related Maps	n/a
Alignment to the Strategic Plan	Program ensures roads and boulevards are made safe for all cyclists, pedestrians and vehicular traffic. Program removes hazards, deficiencies, and reduces risk to the City by replacing with new concrete. This program promotes safety, reduces liability and encourages walkability within the community.

2020 PROJECT FUNDING REQUEST FORM

Number: 20189

Project Cost: $119,200

Project Name: **Localized Repairs - Parking Lots**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 8 Pre Approval: ☐

Department: Operations - Roads

Category: Minor

Project Mgr: John Hoover

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Ongoing maintenance and repairs of municipal parking lots throughout the City. Includes repairs to concrete and asphalt infrastructure, maintenance holes and catchbasin adjustments and asphalt resurfacing. 2020 locations: Thornhill CC and Simonston Park.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	117,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	117,100	0
HST Impact:	2,061	0
Total Project Cost:	**119,200**	**0**

NOTES

This is an annual program. There is no substantial backlog in this program.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	119,200	0	0	0	0	0	0
TOTAL FUNDING	**119,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	119,200
Amount Incl HST	119,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20191

Project Cost: $208,600

Project Name: **Parking Lots- Rehabilitation**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Operations - Roads

Category: Minor

Project Mgr: Zoyeb Vahora

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Complete rehabilitation of selected municipal parking lots throughout the City. Includes removal and replacement of concrete, interlock and asphalt infrastructure, as well as maintenance holes and catch basin adjustments.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	204,945	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	204,945	0
HST Impact:	3,607	0
Total Project Cost:	**208,600**	**0**

NOTES

Rehabilitation of a portion of 8100 Warden Avenue (6750 m2).
There is no backlog in the program. The parking lots are in a state of good repair.
Unit cost is consistent with recent award plus inflation.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	208,600	0	0	0	0	0	0
TOTAL FUNDING	**208,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	430,000
Amount Incl HST	208,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Requesting reduced amount due to the construction of Yorktech through the parking lot. 6750 square metres will be completed.

2020 PROJECT FUNDING REQUEST FORM

Number: 20192

Project Cost: $163,600

Project Name: **Railway Crossing Rehabilitation -Castlemore**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Operations - Roads

Category: Minor

Project Mgr: John Hoover

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Maintenance repairs to rehabilitate railway crossings at Castlemore CN-CP-GO transit systems. Rehabilitation work is required to level and maintain the crossing that the City is responsible for per previous agreement. Work includes remove the existing crossing material and replace it with rubber mud rails, tie, track, asphalt and traffic control.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	160,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	160,800	0
HST Impact:	2,830	0
Total Project Cost:	**163,600**	**0**

NOTES

Metrolinx will be conducting rehabilitation work at Castlemore crossing per the legal agreement between the City and Metrolinx. This agreement states that it is the City's obligation to pay for the costs associated with the rehabilitation works.
Metrolinx estimate - $160,757 not incl. HST impact.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	163,600	0	0	0	0	0	0
TOTAL FUNDING	**163,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	204,700
Amount Incl HST	163,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Denison crossing is being deferred due to Metrolinx schedule.

2020 PROJECT FUNDING REQUEST FORM

Number: 20193

Project Cost: $78,700

Project Name: **Retaining Wall Repair Program**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Operations - Roads

Category: Annual

Project Mgr: John Hoover

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Repairs to failing retaining walls and other right of way structural assets on city owned property.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	77,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	77,300	0
HST Impact:	1,360	0
Total Project Cost:	**78,700**	**0**

NOTES

Locations include; Markham Main St and Rouge Street. This is an annual program. There is no backlog in this program. The retaining walls are in a state of good repair.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	78,700	0	0	0	0	0	0
TOTAL FUNDING	**78,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	78,700
Amount Incl HST	78,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20194

Project Cost: $51,900

Project Name: **Storm Water Retention Pond Maintenance Program**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Operations - Roads

Category: Minor

Project Mgr: John Hoover

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Ongoing minor maintenance activities to all storm water management ponds throughout the City. The work includes repairing/replacing grates, headwalls and fences. This maintenance program will include localized repairs of identified deficiencies as reported by 2018 site inspection. Repair defective items identified from the 115 storm water management (SWM) ponds inspected in the fall of 2019.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	51,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	51,000	0
HST Impact:	898	0
Total Project Cost:	**51,900**	**0**

NOTES

Items include repairs to baffle blocks, inlets, backflow preventer, outlets, pipes and retaining walls. This is an annual program. 3 yr avg is $21k. There is no backlog in this program. Roads provide maintenance above the water line while Environmental Services provide rehabilitation below the water line. Request increased from $26k/year to $52k/year starting 2020 to accommodate vegetation removal at 6 storm water management ponds. Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	51,900	0	0	0	0	0	0
TOTAL FUNDING	**51,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	51,900
Amount Incl HST	51,900
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20195

Project Cost: $39,300

Project Name: **Backstop and Outfield Fence Replacement at Armadale Pk**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 35 Pre Approval: ☐

Department: Operations - Parks

Category: Minor

Project Mgr: James Bingham

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Backstop fence and outfield fence replacement for Armadale Park Major #1.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	38,600	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	38,600	0
HST Impact:	679	0
Total Project Cost:	**39,300**	**0**

NOTES

Unit cost is based on original cost of construction plus inflation. This is an annual program and funding will be requested each year for baseball and softball field's city wide. Project costs vary depending on the number of locations. There is no substantial backlog and assets are in a state of good repair.
Replacement of netting and hardware only, deferred posts and structure to 2040 based on condition assessment. The backstop/outfield fence at Armadale was installed in 1985.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	39,300	0	0	0	0	0	0
TOTAL FUNDING	**39,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	39,300
Amount Incl HST	39,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20196

Project Cost: $11,200

Project Name: **Bleachers (Metal) Replacement - Grandview Bleachers**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 30 Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: James Bingham

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☑ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Large metal bleachers at Grandview Park require replacement based on condition assessment. These bleachers are safety standard certified.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	11,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	11,000	0
HST Impact:	194	0
Total Project Cost:	**11,200**	**0**

NOTES

Funding amount changes every year based on Life Cycle and actual condition assessment performed to support recommendations.
There is no substantial backlog and assets are in a state of good repair.
Unit cost is consistent with recent award plus inflation.
Being replaced in conjunction with Grandview Park Capital Project. Bleacher last replaced in 1990.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	11,200	0	0	0	0	0	0
TOTAL FUNDING	**11,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	22,200
Amount Incl HST	11,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20198

Project Cost: $352,300

Project Name: **Boulevard/Park Trees Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 50 Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: David Plant

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Boulevard/Park replacement tree planting is an annual program which enables the City to replace a total of 705 dead, diseased or damaged trees. Cost per tree is approximately $400 to plant and $100 to grind the remaining stump. This program and funding will be requested each year to address tree loss through damage, accidents and normal mortality.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	346,200	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	346,200	0
HST Impact:	6,093	0
Total Project Cost:	**352,300**	**0**

NOTES

The current backlog of vacant street tree sites is 1600.
Unit price is consistent with recent award plus inflation.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	new Plantings	Back Log			TOTAL	Future Phases
Operating Funded Life Cycle	352,300	176,150	176,150	0	0	352,300	0
TOTAL FUNDING	**352,300**					**352,300**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 352,300

Amount Incl HST 352,300

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20199

Project Cost: $25,300

Project Name: **Bridge Structure Preventative Maintenance in Parks**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 30 Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: Scott Grieve

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Annual preventative maintenance of parks and open space bridges. Locations to be determined based on Spring 2020 condition assessment. Work includes fill and grade bridge approaches, remove and replace wooden decks on pedestrian bridges, railings and curbs.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	24,850	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	24,850	0
HST Impact:	437	0
Total Project Cost:	**25,300**	**0**

NOTES

This is an annual program and funds will be requested each year. There is no backlog and bridge structures are in a state of good repair. Operations is responsible for preventive minor maintenance on bridges/culverts such as minor grading, patching, sealing of bridge approaches and bridge decks, and siltation removal from culverts, while Environmental Services is responsible for its inspection/rehabilitation and replacement. Starting 2018, this project is split into 2 separate projects, one in Roads and the other in Parks.
Amount requested is consistent with the 2019 Life Cycle Reserve

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	25,300	0	0	0	0	0	0
TOTAL FUNDING	**25,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study: 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Starting 2018, this project is split into 2 separate projects, one in Roads and the other in Parks. Life cycle amount resides in the Roads project for Bridge Structure Preventative Maintenance.

2020 PROJECT FUNDING REQUEST FORM

Number: 20200

Project Cost: $44,100

Project Name: **Cemetery Fence Repair at Thornhill Cemetery**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 25 Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: Dean McDermid

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Fence repairs at Thornhill Cemetery (City owned cemeteries = 14) based on condition assessment to maintain a formal border between private adjacent lands and burial grounds.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	43,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	43,300	0
HST Impact:	762	0
Total Project Cost:	**44,100**	**0**

NOTES

This is an annual project and funding will be requested every year. Fence materials vary by location (chain link, wood, wrought iron or a combination). Thornhill Cemetery - Chain Link and Wrought Iron. This program will be evaluated in 2020 and Operations will further develop a Life Cycle replacement program by asset. This is the second year this project has resided with Operations. Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Chain Link	Components: Wrought Iron			TOTAL	Future Phases
Operating Funded Life Cycle	44,100	21,174	22,926	0	0	44,100	0
TOTAL FUNDING	**44,100**					**44,100**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	44,100
Amount Incl HST	44,100
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20201

Project Cost: $171,600

Project Name: **City Park Furniture / Amenities**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: Matthew Busato

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This is an annual replacement program to provide and replace furniture in parks such as picnic tables, waste receptacles, gates, perimeter fencing. Project includes replacement and installation of moloks, picnic table frames, benches, waste receptacles, bike racks, big bellies, signage and hanging baskets.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	168,600	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	168,600	0
HST Impact:	2,967	0
Total Project Cost:	**171,600**	**0**

NOTES

This is an annual program. 3 year average is $158k (2016-2018). Requesting $171.6k due to continued assumption of new parks requiring additional furniture/amenities replacement every year. There is no substantial backlog and assets are in a state of good repair.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components				TOTAL	Future Phases
Operating Funded Life Cycle	171,600	0	0	0	0	0	0
TOTAL FUNDING	**171,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	171,600
Amount Incl HST	171,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20202

Project Cost: $403,400

Project Name: **Court Resurfacing/Reconstruction/Maintenance**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 7 Pre Approval: ☐

Department: Operations - Parks

Category: Minor

Project Mgr: Dean McDermid

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Repair and resurfacing of basketball, public and club tennis courts at various locations based on consultant review and annual staff appraisal each spring and fall. Reconstruction- Duncan Park 1, 2, 3 and Morgan Park 1,2. Resurface - Berczy Park South 1 & 2, Johnsview Village 1,2, and Thornlea S.S. 1,2,3.
Maintenance - Carlton Park 1,2.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	396,423	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	396,423	0
HST Impact:	6,977	0
Total Project Cost:	**403,400**	**0**

NOTES

There has been deferments of court resurfacing/replacement at some tennis clubs but it is not causing any safety issues.
The City is responsible for the annual maintenance of the clay courts to a maximum of $3k per court (total of $9k per year for 3 clay courts). The total cost of resurfacing/rebuilding courts at tennis clubs is shared 50:50 between the tennis club and the City. Tennis club court replacement/rehabilitation will proceed subject to satisfactory club finance review.

SOURCE(S) OF FUNDING ($)		Components				
Funding Type	Budget		Clay Court	Public Courts	TOTAL	Future Phases
Operating Funded Life Cycle	403,400	0	9,000	394,400	403,400	0
TOTAL FUNDING	**403,400**				**403,400**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	505,500
Amount Incl HST	403,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Removed Armadale CC

2020 Court Resurfacing/Reconstruction

Resurface, Reconstruction or Maintenance	Component	Cost Including Inflation (inc. HST Impact)	Tennis Club Share -inc. HST impact	Total Project Cost (City Share/Tennis Club Share) -inc. HST impact	Notes
Resurface	Berczy Park South - #1 & #2	40,446		40,446	Public courts
Clay Court Maintenance	Carlton Park #5, #6, & #7	9,000		9,000	Reimbursement to Unionville Tennis Club
Rebuild	Duncan Park - #1, #2 & #3	151,674		151,674	Public courts
Resurface	Johnsview - #1 & #2	40,446		40,446	Public courts
Rebuild	Morgan - #1 & #2	101,116		101,116	Public courts
Resurface	Thornlea - #1, #2 & #3	60,670		60,670	
	Total	**403,353**	**0**	**403,353**	
	Rounded Off	**403,400**	**0**	**403,400**	

2020 PROJECT FUNDING REQUEST FORM

Number: 20203

Project Cost: $82,400

Project Name: **Cricket Pitch Outfield Screening Repl. at Yarl Cedarwood**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: James Bingham

Cost Validation: Internal peer review

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of netting around the Yarl Cedarwood Cricket pitch.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	81,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	81,000	0
HST Impact:	1,426	0
Total Project Cost:	**82,400**	**0**

NOTES

Install new fabric and winch system only. Poles deferred until 2030. This screening was last replaced in 2010.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	82,400	0	0	0	0	0	0
TOTAL FUNDING	**82,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	82,400
Amount Incl HST	82,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20204

Project Cost: $84,300

Project Name: **Decorative Fountain Replacement at Swan Lake Pk**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Operations - Parks

Category: Minor

Project Mgr: Matt Busato

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of decorative fountain, based on life cycle and condition assessment. 2020 location is Swan Lake Park (2 fountains).

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	82,806	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	82,806	0
HST Impact:	1,457	0
Total Project Cost:	**84,300**	**0**

NOTES

This device will agitate and aerate the pond. This fountain was first installed in 2000 and this is the first time it will be replaced. Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	84,300	0	0	0	0	0	0
TOTAL FUNDING	**84,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	84,300
Amount Incl HST	84,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20205

Project Cost: $20,200

Project Name: **Goal Posts Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 30 Pre Approval: ☐

Department: Operations - Parks

Category: Major

Project Mgr: James Bingham

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Goal Posts (2 sets) at 3 locations (Grandview & Quantztown (1 & 2)) due for replacement based on life expectancy and condition rating.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	19,900	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	19,900	0
HST Impact:	350	0
Total Project Cost:	**20,200**	**0**

NOTES

Life cycle Program. $6.6K per pair per location. This is an annual program and funding will be requested each year. The replacements are safety compliant.
Unit prices consistent with recent award plus inflation. The goal posts at Grandview were last replaced in 1990 and first installed at Quantztown in 1990.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	20,200	0	0	0	0	0	0
TOTAL FUNDING	**20,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	20,300
Amount Incl HST	20,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20206

Project Cost: $176,500

Project Name: **Huntington Pk Floodlights, Poles & Cross Arms Replacemt.**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 30 Pre Approval: ☐

Department: Operations - Parks

Category: Minor

Project Mgr: James Bingham

Cost Validation: External peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Floodlights, poles and cross arms at parks due for replacement based on condition assessment and to avoid untimely outages. This project includes the repair, removal and disposal of existing poles and floodlights, and supply and installation of new poles, cross arms and floodlights. Location for 2020 is Huntington Softball Diamond.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	173,400	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	173,400	0
HST Impact:	3,052	0
Total Project Cost:	**176,500**	**0**

NOTES

This is an annual program and funding will be requested each year. All of the Markham sports fields constructed or retrofitted since 1982 have been equipped with controlled-optic sports floodlights that are designed to control the direct illumination and to reduce the dark sky illumination. Project will be completed during 2019/2020 winter season. This project will be LED lights due to low light levels and power issues with current cabling. There is no substantial backlog and assets are in a state of good repair. The Huntington Softball Diamond floodlights were first installed in 1989. Amount requested is consistent with the 2019 Life Cycle Reserve

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	176,500	0	0	0	0	0	0
TOTAL FUNDING	**176,500**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	176,500
Amount Incl HST	176,500
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20207

Project Cost: $122,100

Project Name: **Markham Trees for Tomorrow**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 50 Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: Nory Takata

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Initiated in 2007, the program focuses on supporting canopy core initiatives through the engagement of community and corporate volunteers and Non-Government Organizations. The program scope is developed annually based on changing priorities that focus on education to promote and maintain the health and longevity of our urban forest. To date, over 390,000 trees have been planted citywide since the program's inception.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	120,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	120,000	0
HST Impact:	2,112	0
Total Project Cost:	**122,100**	**0**

NOTES

This program facilitates tree planting projects that incorporate community engagement and partnership opportunities.
2019-2022 Goals
1. Increase tree canopy by 30%; 2.Partnerships
3. Outreach, Education, Promotions.
Focal point of 2020 is restoration plantings, 10,000 trees, Tree Canada, refreshed branding, social media campaign and tree education programs.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Tax	122,100	0	0	0	0	0	0
TOTAL FUNDING	**122,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20208

Project Cost: $101,800

Project Name: **Parks Interpretative Signage Implementation - Phase 1 of 3**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☐

Department: Operations - Parks

Category: Major

Project Mgr: David Plant

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

City parks are named based on an approved criteria recognizing individual(s) who have made significant contributions to the city or society. Interpretive signs offer the background of the individuals that each park was named for.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	100,000	200,000
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	100,000	200,000
HST Impact:	1,760	3,520
Total Project Cost:	**101,800**	**203,500**

NOTES

Some of the parks named after recognized individuals have had an interpretive sign installed. This project will address the rest of the parks where interpretative signage have not been installed.
Interpretive signs to install in 2020- 50
Total signs to install is 150.
There will be lifecycle impact of $300K over 25 years as these signs have a useful life of 15 years.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
	0	0	0	0	0	0	0
Tax	101,800	0	0	0	0	0	0
TOTAL FUNDING	**101,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study: 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20211

Project Cost: $16,600

Project Name: **Recycling Containers Replacement (Yr 3 of 10)**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Operations - Parks

Category: Minor

Project Mgr: Matt Busato

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of recycling containers based on condition assessment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	16,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	16,300	0
HST Impact:	287	0
Total Project Cost:	**16,600**	**0**

NOTES

There are approximately 500 seasonal recycling bins in parks. Project will replace these bins (purchased in 2008) with some permanent bins and some seasonal bins, based on collection data. Steel painted drums (30), flair top ribbon containers (18) and lids (30) will be replaced.
30 recycling drums at $26/unit = $780
30 lids at $40/unit = $1,200
18 flair top ribbon containers at $800/unit = 14,400
This is the 3rd year of a 10 year replacement program for recycling containers in parks

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	16,600	0	0	0	0	0	108,700
TOTAL FUNDING	**16,600**					**0**	**108,700**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	16,600
Amount Incl HST	16,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20212

Project Cost: $63,700

Project Name: **Rejuvenation of Community Centres Landscapes-Year 3 of 3**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: Matthew Busato

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☑ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Rejuvenation at community centres to provide more user friendly, welcoming and vibrant entrances. Landscape modifications include hardscape and softscape.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	62,600	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	62,600	0
HST Impact:	1,102	0
Total Project Cost:	**63,700**	**0**

NOTES

Total of 3 locations to be implemented over 3 years. Total project cost is $180,000 plus inflation. 3 locations per year at $60k per year. 2018- Milliken Mills, Mt. Joy and Armadale. 2019 - Centennial, Museum, Clatworthy. 2020 - Crosby, Angus Glen and Box Grove. Crosby will not be proceeding due to Master Plan. Crosby will be replaced with Unionville Library. Boxgrove was completed with park project in 2018 and will be replaced with Rouge River C.C. Funding may be reallocated within the components of this project.
Amount requested is consistent with the 2019 Life Cycle Reserve

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components				TOTAL	Future Phases
Operating Funded Life Cycle	63,700	0	0	0	0	0	60,000
TOTAL FUNDING	**63,700**					**0**	**60,000**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	63,700
Amount Incl HST	63,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20213

Project Cost: $27,000

Project Name: **Relamping & Fixtures Refurbishment**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: James Bingham

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

An independent audit of electrical services in municipal parks and sportsfields identifies locations for repair/maintenance of electrical components based on condition assessment. Untimely outages may pose potential hazards.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	22,533	0
Internal Charges:	0	0
External Consulting:	4,000	0
Sub Total:	26,533	0
HST Impact:	467	0
Total Project Cost:	**27,000**	**0**

NOTES

Locations to be determined. Project scope includes bulb, defective ballast, cables, broken lens replacements. Work to completed is based on condition assessment by the lighting consultant and is location specific. This is an annual program and funding will be requested each year; 3 year average- $27k (2016-2018). The assets are in a state of good repair.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	27,000	0	0	0	0	0	0
TOTAL FUNDING	**27,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	39,300
Amount Incl HST	27,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Amount requested is based on 3 year average.

2020 PROJECT FUNDING REQUEST FORM

Number: 20214

Project Cost: $78,500

Project Name: **Shade Structure Refurbishment**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 35 Pre Approval: ☐

Department: Operations - Parks

Category: Minor

Project Mgr: Scott Grieve

Cost Validation: Internal peer review

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☑ 5 ☑ 6 ☐ 7 ☑ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Refurbishment of shade structures (gazebo minor, major and trellis) based on condition assessment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	77,186	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	77,186	0
HST Impact:	1,358	0
Total Project Cost:	**78,500**	**0**

NOTES

2020 locations are:
Church Street Parkette (Major)
Millenium Band Stand (Major) Huntington park.
These will be replaced with steel structures of similar form and will provide an extended life of 35 years as compared to 20 years.
This is as per the new standard implemented in 2017. There is currently no backlog and the assets are in a state of good repair.
These shade structures were last installed in year 2000.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	Huntington Park	Millenium Bandstand	Church Street Parkette		TOTAL	Future Phases
Operating Funded Life Cycle	78,500	35,525	25,775	17,200	0	78,500	0
TOTAL FUNDING	**78,500**					**78,500**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	191,800
Amount Incl HST	78,500
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20215

Project Cost: $137,600

Project Name: **Sportsfield Maintenance & Reconstruction**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Operations - Parks

Category: Annual

Project Mgr: James Bingham

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Life cycle program includes top dressing, grass seed, sod, fertilizer, and irrigation upgrades as per contracts. Funds within this project may be reallocated to sportsfield maintenance materials and services that require immediate attention unforeseen at time of submission such as sodding of damaged fields. Locations to be determined each spring and again at the end of playing season based on inspection.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	135,200	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	135,200	0
HST Impact:	2,380	0
Total Project Cost:	**137,600**	**0**

NOTES

There are 212 sportsfields existing in various parks and schools which consist of baseball diamonds, rugby, soccer, cricket and football fields. Fields are scheduled for renovation every year by various degrees depending on condition. Average expenditures per sportsfield vary depending on use, wear and tear and weather conditions. This is an annual program and funding will be requested each year. There is no substantial backlog within this program and assets are in a state of good repair. Project cost is based on existing contracts (expire 2021).

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	137,600	0	0	0	0	0	0
TOTAL FUNDING	**137,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	137,600
Amount Incl HST	137,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20216

Project Cost: $247,200

Project Name: **Stairway Repairs**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☐

Department: Operations - Parks

Category: Minor

Project Mgr: Scott Grieve

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project replaces failing and deficient stairways citywide. Stairways offer important access points to valley land, park, parking lots and facilities.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	242,900	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	242,900	0
HST Impact:	4,275	0
Total Project Cost:	**247,200**	**0**

NOTES

2020 project will include:
Stairs from Main Street Unionville to the lower municipal parking lot.
Romfield-Knotty Pine tunnel stairway
Stairway and railing from Irish Rose to McCowan
The assets are in a state of good repair. Unit prices consistent with recent award plus inflation.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Main Street	Romfield-Knotty Pine	Irish Rose		TOTAL	Future Phases
Operating Funded Life Cycle	247,200	80,000	157,000	10,200	0	247,200	0
TOTAL FUNDING	**247,200**					**247,200**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	247,200
Amount Incl HST	247,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20217

Project Cost: $60,600

Project Name: **Tennis Courts Fence Replacement at Armadale Pk**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 35 Pre Approval: ☐

Department: Operations - Parks

Category: Minor

Project Mgr: Dean McDermid

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Armadale Park tennis courts 1-4 due for replacement based on condition assessment. Originally constructed in 1985.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	59,600	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	59,600	0
HST Impact:	1,049	0
Total Project Cost:	**60,600**	**0**

NOTES

This is an annual program and funding will be requested each year. This is the first time this location is being replaced since original construction. Unit cost is based on original cost of construction plus inflation. There is no substantial backlog and the fences are in a state of good repair. Fence and posts to be done in conjunction with court resurfacing, if courts are deferred fencing will also be deferred.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	60,600	0	0	0	0	0	0
TOTAL FUNDING	**60,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	60,600
Amount Incl HST	60,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20218

Project Cost: $337,000

Project Name: **Tomlinson Waterplay Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: Operations - Parks

Category: Minor

Project Mgr: Scott Grieves

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Waterplay at Tomlinson due for rehabilitation based on life expectancy and condition assessment.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	331,200	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	331,200	0
HST Impact:	5,829	0
Total Project Cost:	**337,000**	**0**

NOTES

This is an annual program and funding will be requested each year for different locations at different amounts depending on type of waterplay. This waterplay was first installed in 1996 and this is the first time it will be replaced.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	337,000	0	0	0	0	0	0
TOTAL FUNDING	**337,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	337,000
Amount Incl HST	337,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20219

Project Cost: $10,200

Project Name: **Corporate Fleet Growth - Non-Fleet**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 7 Pre Approval: ☐

Department: Operations - Fleet

Category: Annual

Project Mgr: Raymond Law/Peter Englezakos

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To purchase growth related Non- Fleet equipment such as push mowers, portable generators, cord trimmers, leaf blowers and other small tools.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	10,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	10,000	0
HST Impact:	176	0
Total Project Cost:	**10,200**	**0**

NOTES

Additional equipment for additional seasonal staff based on growth.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	10,200	0	0	0	0	0	0
TOTAL FUNDING	**10,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20220

Project Cost: $37,800

Project Name: **Corporate Fleet Refurbishing**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 3 Pre Approval: ☐

Department: Operations - Fleet

Category: Minor

Project Mgr: Raymond Law/Peter Englezakos

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Equipment and vehicles require periodic refurbishing, rust proofing and corrosion protection to meet the Ministry of Transportation safety requirements and to ensure life cycle requirements are met. Program helps to mitigate maintenance costs and keeps the equipment in a state of good repair.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	37,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	37,100	0
HST Impact:	653	0
Total Project Cost:	**37,800**	**0**

NOTES

Project includes rust protection, body work and painting. Requirement Validation - condition assessment and legislative compliance. This is an annual program. 3 year average is $37k. Amount requested is consistent with Lice Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	37,800	0	0	0	0	0	0
TOTAL FUNDING	**37,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	37,800
Amount Incl HST	37,800
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20221

Project Cost: **$918,800**

Project Name: **Corporate Fleet Replacement - Fire**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Operations - Fleet

Category: Major

Project Mgr: Dave Decker/Raymond Law

Cost Validation: Other(specify in Notes)

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

2020 Annual Fleet Replacement Program based on the Council adopted Corporate Fleet Policy Guidelines. Life cycle costing targets optimal replacement intervals (ORI) which identifies the most cost effective time period for replacement. All vehicles and equipment contained in this program have reached or surpassed the ORI. User Departments were consulted with respect to the units in this program. Total units for replacement - 2 units

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	902,926	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	902,926	0
HST Impact:	15,891	0
Total Project Cost:	**918,800**	**0**

NOTES

Useful life varies from 5 to 10 years based on units types. Cost Validation- Most recent purchase of similar unit type; Requirement validation - Condition assessment, vehicle reliability & down time, & operating costs. Units specified in this replacement program will be purchased with the most recent technology available at time of purchase providing maximized fuel economy with minimal emissions. Project completion estimated at Q2 2021 for pumper due to time required to build the vehicles (built in USA). USD foreign exchange used was 1.35 USD to CDN (subject to change). USD $641,771

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	Fire	Fire Apparatus			TOTAL	Future Phases
Operating Funded Life Cycle	918,800	38,552	880,248	0	0	918,800	0
TOTAL FUNDING	**918,800**					**918,800**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,121,500
Amount Incl HST	918,800
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Deferred 8 units.

Project	Corporate Fleet Replacement - Fire
2020 Capital Request	$918,800
Funding Source	Life Cycle Reserve
Description of Program	2020 Annual Fleet Replacement Program based on the Council adopted Corporate Fleet Policy Guidelines. Life cycle costing targets optimal replacement intervals (ORI) which identifies the most cost effective time period for replacement. All vehicles and equipment contained in this program have reached or surpassed the ORI. User Departments are consulted with respect to the units in this program. Total units for replacement - 2 units
Project Rationale	2020 Annual Fleet Replacement Program is based on the Council adopted Corporate Fleet Policy Guidelines and condition assessment. To maintain current service levels for all user departments.
Legislative Requirement	n/a
History	
Future Phases	This funding is requested each year.
Total Project Cost	n/a
Related Projects	
Related Maps	
Alignment to the Strategic Plan	Providing reliable fleet units allowing effective municipal services to local residents and businesses. Promoting the continued use of new technology along with alternate energy solutions that reduce fuel consumption and improved fleet efficiencies with reductions in overall fleet emissions.

2020 Corporate Fleet Replacement Program - Fire

Asset ID	Inventory Description	Model Year	Mileage (km)	Usage (hours)	Facility	2020 Inflated Cost	Adjustment	2020 Updated Cost	Project Notes
9950	FULL SIZE WINDOW VAN-E350	2008	85,862		FIRE-1- Fire	37,885		37,885	Deferred from 2018 to 2020
9991	SMEAL PUMPER RESCUE SPARTON METROSTAR-PUMPER RESCUE	2012	84,158	4,228	FIRE-1- Fire Apparatus	865,041		865,041	US$640,771 @ 1.35 conversion rate
						902,926		**902,926**	
					HST Impact	**15,891**		**15,891**	
					Total - Project Cost	**918,817**		**918,817**	
					Rounded Off - Project Cost	**918,800**		**918,800**	

REVISED PROJECT COST

No. of Unit	Category	Pre-Tax	HST Impact	Project Cost
1	Fire	37,885	667	38,552
1	Apparatus	865,041	15,225	880,266
		902,926	15,891	918,817
			Rounded Off - Project Cost	**918,800**

2020 PROJECT FUNDING REQUEST FORM

Number: 20222

Project Cost: $100,200

Project Name: **Corporate Fleet Replacement - Ice Resurfacing Machine**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Operations - Fleet

Category: Major

Project Mgr: Raymond Law/Peter Englezakos

Cost Validation: Other(specify in Notes)

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Part of the 2020 Annual Fleet Replacement Program based on the Council adopted Corporate Fleet Policy Guidelines and condition assessment. Life cycle costing targets Optimal Replacement Intervals (ORI) which identifies the most cost effective time period for replacement. All equipment contained in this program have reached or surpassed the ORI. User Departments were consulted with respect to the units in this program. Unit for replacement - 1 ice resurfacing machine at Crosby Arena

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	98,500	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	98,500	0
HST Impact:	1,734	0
Total Project Cost:	**100,200**	**0**

NOTES

Cost Validation- most recent purchase of similar unit type. Requirement validation - vehicle reliability and down time, and operating costs. Pending condition assessment. Replacement model and make may change depending on availability. This program and funding will be requested each year. Unit specified in this replacement program will be purchased with the most recent technology available at time of purchase providing maximized fuel economy with minimal emissions.
Amount requested is consistent with Lice Cycle Reserve Study update

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	100,200	0	0	0	0	0	0
TOTAL FUNDING	**100,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	100,200
Amount Incl HST	100,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20223

Project Cost: $710,500

Project Name: **Corporate Fleet Replacement - Non-Fire**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 5 Pre Approval: ☐

Department: Operations - Fleet

Category: Major

Project Mgr: Raymond Law/Peter Englezakos

Cost Validation: Other(specify in Notes)

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

2020 Annual Fleet Replacement Program based on the Council adopted Corporate Fleet Policy Guidelines. Life cycle costing targets optimal replacement intervals (ORI) which identifies the most cost effective time period for replacement. All vehicles and equipment contained in this program have reached or surpassed the ORI. User Departments were consulted with respect to the units in this program. Total units - 24 units

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	698,165	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	698,165	0
HST Impact:	12,288	0
Total Project Cost:	**710,500**	**0**

NOTES

Useful life varies - 4 to 12 years based on units types. Operations-Non Fleet ($55k) includes cord trimmers, chainsaws, blowers, etc. Cost Validation- Most recent purchase of similar unit type; Requirement validation - Condition assessment, vehicle reliability & down time, & operating costs. Units specified in this program will be purchased with the most recent technology available at time of purchase providing maximized fuel economy with minimal emissions. Completion estimated at Q2 2021 due to different vehicle built cycle.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Licensed	Non Licensed	Non Fleet		TOTAL	Future Phases
Operating Funded Life Cycle	710,500	425,702	230,757	54,041	0	710,500	0
TOTAL FUNDING	**710,500**					**710,500**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	4,016,400
Amount Incl HST	710,500
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Deferred 39 units.

Project	Corporate Fleet Replacement – Non fire
2020 Capital Request	$710,500
Funding Source	Life Cycle Reserve
Description of Program	2020 Annual Fleet Replacement Program based on the Council adopted Corporate Fleet Policy Guidelines. Life cycle costing targets optimal replacement intervals (ORI) which identifies the most cost effective time period for replacement. All vehicles and equipment contained in this program have reached or surpassed the ORI. User Departments are consulted with respect to the units in this program. Total units - 24 units
Project Rationale	2020 Annual Fleet Replacement Program based on the Council adopted Corporate Fleet Policy Guidelines. To maintain current service levels for all users department
Legislative Requirement	n/a
History	
Future Phases	This funding is requested each year.
Total Project Cost	n/a
Related Projects	
Related Maps	n/a
Alignment to the Strategic Plan	Providing reliable fleet units allowing effective municipal services to local residents and businesses. Promoting the continued use of new technology along with alternate energy solutions that reduce fuel consumption and improved fleet efficiencies with reductions in overall fleet emissions.

2020 Corporate Fleet Replacement - Non-Fire

Asset ID	Inventory Description	Model Year	Mileage (km)	Usage (hours)	Facility	Category	2020 Inflated Cost	Adjustment	2020 Updated Cost	Project Notes
3323	19500 GVW FLATBED WITH 9` ARCTIC PLOW-TERRASTAR	2012	90,954		OPERATIONS / PARKS-Licensed	Licensed	90,048		90,048	
3324	19500 GVW FLATBED WITH 9` ARCTIC PLOW-TERRASTAR	2012	82,854		OPERATIONS / PARKS-Licensed	Licensed	90,048		90,048	
1173	COMPACT VAN FWD-GRAND CARAVAN	2012	61,071		OPERATIONS-Licensed	Licensed	22,564	22,429	44,993	Unit has signficant corrosion. Switch unit with 1269 (Rds. Supervisor). Replace 1269 w/ Compact SUV PHEV.
8040	COMPACT SUV FWD HYBRID-ESCAPE	2008	92,657		ENGIN-1-Licensed	Licensed	39,323	5,670	44,993	Deferred from 2019 to 2020. Specification change to Compact SUV PHEV
5369	FULL SIZE VAN-NV 2500	2012	72,901		ASSET MAN-Licensed	Licensed	43,819		43,819	
5378	FULL SIZE VAN-NV 2500	2012	83,641		ASSET MAN-Licensed	Licensed	43,819		43,819	
1239	FULL SIZE 3/4 TON PICKUP 2WD-RAM 2500	2012	203,638		OPERATIONS-Licensed	Licensed	28,580		28,580	
4387	TURF TILLER-TILLR	2000			OPERATIONS / PARKS-Non Licensed	Non Licensed	26,300		26,300	
8053	COMPACT VAN FWD-UPLANDER	2008	45,248		ENGIN-1-Licensed	Licensed	24,691		24,691	Deferred from 2019 to 2020. Significant corrosion to underbody.
4565	ELECTRIC POWERED UTILITY VEHICLE-ELECTRIC HAULER	2010		2,507	OPERATIONS-Non Licensed	Non Licensed	15,046		15,046	
3400	ZERO TURN 60" DIESEL POWERED-ZD21F ZERO TURN	2012		1,539	OPERATIONS-Non Licensed	Non Licensed	14,505		14,505	
3401	ZERO TURN 60 " DIESEL POWERED-ZD21F ZERO TURN	2012		2,050	OPERATIONS-Non Licensed	Non Licensed	14,505		14,505	
3402	ZERO TURN 60" DIESEL POWERED-ZD21F ZERO TURN	2012		1,660	OPERATIONS-Non Licensed	Non Licensed	14,505		14,505	
3403	ZERO TURN 60" DIESEL POWERED-ZD21F ZERO TURN	2012		1,014	OPERATIONS-Non Licensed	Non Licensed	14,505		14,505	Engine failure.
3473	ZERO TURN 60" DIESEL POWERED-ZD21F ZERO TURN	2012		1,808	OPERATIONS-Non Licensed	Non Licensed	14,505		14,505	
3495	ZERO TURN MOWER 60" DIESEL POWERED-ZD21F ZERO TURN	2012		1,585	OPERATIONS-Non Licensed	Non Licensed	14,505		14,505	
3476	ZERO TURN 60" REAR DISCHARGE DIESEL -ZD21F ZERO TURN	2011		1,573	OPERATIONS-Non Licensed	Non Licensed	14,071		14,071	Deferred from 2019 to 2020
3480	ZERO TURN 60" REAR DISCHARGE DIESEL -ZD21F ZERO TURN	2011		1,789	OPERATIONS-Non Licensed	Non Licensed	14,071		14,071	Deferred from 2019 to 2020
3481	ZERO TURN 60" REAR DISCHARGE DIESEL -ZD21F ZERO TURN	2011		1,640	OPERATIONS-Non Licensed	Non Licensed	14,071		14,071	Deferred from 2019 to 2020
3482	ZERO TURN 60" REAR DISCHARGE DIESEL -ZD21F ZERO TURN	2011		1,637	OPERATIONS-Non Licensed	Non Licensed	14,071		14,071	Deferred from 2019 to 2020
4035	ZERO TURN 60" REAR DISCHARGE DIESEL -TURN	2011		1,505	OPERATIONS-Non Licensed	Non Licensed	14,071		14,071	Deferred from 2019 to 2020
4193	ZERO TURN 60" REAR DISCHARGE DIESEL -ZD21F ZERO TURN	2011		1,626	OPERATIONS-Non Licensed	Non Licensed	14,071		14,071	Deferred from 2019 to 2020
4218	ZERO TURN 60"REAR DISCHARGE DECK-ZD21F ZERO TURN	2011		2,087	OPERATIONS-Non Licensed	Non Licensed	13,963		13,963	Deferred from 2019 to 2020
1967	TANDEM AXLE TRAILER-TRAIL	2001			OPERATIONS-Licensed	Licensed	7,349		7,349	
All	Operation Non Fleet < $5,000 or Misc	2017			OPERATIONS- Operation Non Fleet < $5,000 or Misc	Operation Non Fleet < $5,000 or Misc	53,060		53,060	
							670,067		698,166	
						HST impact	**11,793**		**12,288**	
						Total Project Cost	**681,860**		**710,453**	
						Rounded Off - Project Cost	**681,900**		**710,500**	

ORIGINAL PROJECT COST

No. of Units	Category	Pre-Tax	HST Impact	Project Cost
9	Licensed	418,339	7,363	**425,702**
15	Non Licensed	226,766	3,991	**230,757**
	Operations Nor	53,060	934	**53,994**
		698,165	**12,288**	**710,453**

Asset ID	Inventory Description	Model Year	Mileage (km)	Usage (hours)	Facility	Category	2020 Inflated Cost	Adjustment	2020 Updated Cost	Project Notes
									Rounded Off - Project Cost	710,500

2020 PROJECT FUNDING REQUEST FORM

Number: 20224

Project Cost: $378,400

Project Name: **Corporate Fleet Replacement - Waterworks**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 8 Pre Approval: ☐

Department: Operations - Fleet

Category: Major

Project Mgr: Raymond Law/Pete Englezakos/Eddy Wu

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Part of the Annual Fleet Replacement Program based on the Council adopted Corporate Fleet policy guidelines. Life Cycle costing targets Optimal Replacement Intervals (ORI) which identifies the most cost effective time period for replacement. All vehicles and equipment (4 units) contained in this program have reached or surpassed the ORI. This is funded by Waterworks reserve.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	371,843	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	371,843	0
HST Impact:	6,544	0
Total Project Cost:	**378,400**	**0**

NOTES

4 units - Requirement Validation - meeting the approved replacement criteria, pending condition assessment.
All units in this request will be purchased with the most recent technology available at time of purchase providing maximum fuel economy with minimal emissions.
Delivery time is one year. Project completion estimated at Q1 2021.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Waterworks	378,400	0	0	0	0	0	0
TOTAL FUNDING	**378,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	553,800
Amount Incl HST	378,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

3 units deferred.

2020 Waterworks Fleet Replacement Program

Asset ID	Inventory Description	Model Year	Mileage (Km)	Usage (Hours)	Category	2020 Inflated Cost	Adjustment	2020 Updated Cost	Project Notes
2191	CUBE VAN CAMERA TRUCK-F550	2010	58,169		WATER- Licensed	197,345		197,345	Low km's but high hours. Engine needs to run while conducting camera inspections.
2197	ONE TON FLATBED DIESEL 9` DUMP & CRANE-RAM 3500	2008	56,427		WATER- Licensed	79,198		79,198	Deferred from 2019 to 2020
2197	Spec. change to 5500 series 19500 GVW Flatbed					27,302		27,302	Upsized truck required to be compliant with load ratings. Winch on current unit is not certifiable for our use.
2171	FULL SIZE CARGO VAN-G1500 EXPRESS	2012	106,979		WATER- Licensed	33,999		33,999	
2186	FULL SIZE CARGO VAN-G1500 EXPRESS	2012	88,088		WATER- Licensed	33,999		33,999	
						371,843		**371,843**	
					HST impact	**6,544**		**6,544**	
					Total Project Cost	**378,387**		**378,387**	
					Rounded Off Project Cost - 8 units	**378,400**		**378,400**	

REVISED PROJECT COST

No. of Unit	Category	Pre-Tax	HST Impact	Project Cost
4	Licensed	371,843	6,544	378,387
		371,843	6,544	378,387
			Rounded Off - Project Cost	**378,400**

2020 PROJECT FUNDING REQUEST FORM

Number: 20225

Project Cost: $98,900

Project Name: **New Fleet - Parks**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: Operations - Fleet

Category: Minor

Project Mgr: Raymond Law/Peter Englezakos

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Purchase and acquisition of one 11-ft wide area mower and one 16 ft. deck-over trailer. Additional mower required to maintain levels of service due to growth in parks and open space. The deck-over trailer will allow larger wide-area mowers to be transported from location to location without being driven on the roadway; reducing wear/damage to mower components as they are not designed to be transported via roadway.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	97,200	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	97,200	0
HST Impact:	1,711	0
Total Project Cost:	**98,900**	**0**

NOTES

Cost based on recent quotes.

SOURCE(S) OF FUNDING ($)		Components				
Funding Type	Budget	Trailer	Mower		TOTAL	Future Phases
DCA	98,900	7,100	91,800	0	98,900	0
TOTAL FUNDING	**98,900**				**98,900**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$5,650	$0	$5,650

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20226

Project Cost: $296,600

Project Name: **New Fleet - Roads**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 8 Pre Approval: ☐

Department: Operations - Fleet

Category: Minor

Project Mgr: Raymond Law/Peter Englezakos

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Acquire one 3.5 yard articulating loader and upfitting of four owned seasonal pickup trucks with arrowboards and road temperature sensors. Loader is required for loading and transporting materials at new East Yard. Upfitting of pickup trucks required to allow seasonal staff to carry out road patrols during non-weather event shifts. These pick up trucks will be stationed at the new East Yard.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	291,480	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	291,480	0
HST Impact:	5,130	0
Total Project Cost:	**296,600**	**0**

NOTES

Cost based on recent quotes.
Loader: $270,000
AVL: $200
Arrowboards: $4,120 x 4 = $16,480
Road temperature sensors: $1,200 x 4 = $4,800
Non-personnel cost for fuel $8,200, parts $8,700 and external vehicle maintenance $6,500.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	296,600	0	0	0	0	0	0
TOTAL FUNDING	**296,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$23,400	$0	$23,400

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20227

Project Cost: $110,100

Project Name: **German Mills Meadow - Equipment Maintenance**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☐

Department: Operations - Utility Inspection & Survey

Category: Major

Project Mgr: Robert Marinzel

Cost Validation: Internal peer review

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Repairs to components of the gas collection and environmental monitoring systems at the German Mills Meadow and Natural Habitat to ensure that the appropriate protection is provided to the abutting residential properties and German Mills Creek.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	87,200	0
Internal Charges:	0	0
External Consulting:	21,000	0
Sub Total:	108,200	0
HST Impact:	1,904	0
Total Project Cost:	**110,100**	**0**

NOTES

This project is for the maintenance of the equipment that performs the monitoring. A consultant will be hired to inspect and assess the monitoring equipment and recommend rehabilitation work that is required. Consulting is 20% of rehabilitation works. This program is required every two years. Amount requested is consistent with Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	110,100	0	0	0	0	0	0
TOTAL FUNDING	**110,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	110,100
Amount Incl HST	110,100
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20229

Project Cost: $18,900

Project Name: **Survey Instrument Upgrade/Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 7 Pre Approval: ☐

Department: Operations - Utility Inspection & Survey

Category: Annual

Project Mgr: Robert Marinzel

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Acquisition of GPS RTK (Real Time Kinematics) system leverages existing equipment inventory and will provide greater efficiencies by allowing single crew surveying and eliminate redundant stages in the data collection process. Primary survey equipment consists of the following items: Total Station - requires software upgrade; Data Collector - requires software upgrade; Optical/digital level - no repair necessary.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	18,600	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	18,600	0
HST Impact:	327	0
Total Project Cost:	**18,900**	**0**

NOTES

Expenditures for equipment upgrade and or repair should be done at a 7 year interval. Software included with RTK system will also be compatible for upgrade of existing equipment without additional software purchase. A $1,500 annual subscription is required to access survey grade positioning information (satellite based). Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	GPS RTK				TOTAL	Future Phases
Operating Funded Life Cycle	18,900	18,900	0	0	0	18,900	0
TOTAL FUNDING	**18,900**					**18,900**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$1,500	$0	$1,500

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	16,600
Amount Incl HST	18,900
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Amount requested includes 1st year subscription cost.

2020 PROJECT FUNDING REQUEST FORM

Number: 20230

Project Cost: $27,700

Project Name: **Survey Monument Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 60 Pre Approval: ☐

Department: Operations - Utility Inspection & Survey

Category: Minor

Project Mgr: Robert Marinzel

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program to replace damaged survey monuments to maintain integrity of City's survey control network. A well developed survey control network will help to achieve an efficient engineering design and construction program and also reduce layout time.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	27,200	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	27,200	0
HST Impact:	479	0
Total Project Cost:	**27,700**	**0**

NOTES

This is an annual program and funding will be requested each year.
Total survey monuments in City – 2,585
Addition through sub division assumption process – Avg. 35/year.
There is no backlog and the assets are in a state of good repair.
Replacement – Avg. 40/year 2020 estimated quantity is 38 horizontal at an average of $700/unit for horizontal survey monuments. 3 year average spend is $25k based on an average of 45 horizontal control monument replacements. Unit cost is consistent with recent award plus inflation. Amount requested is consistent with Life Cycle Reserve Study update

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	27,700	0	0	0	0	0	0
TOTAL FUNDING	**27,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	27,700
Amount Incl HST	27,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20231

Project Cost: $438,800

Project Name: **Growth Related Parks Improvements**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☐

Department: Operations - Business & Technical Services

Project Mgr: Tanya Lewinberg

Category: Minor

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Expressing Markham's commitment to ongoing development and enhancement of existing parks and open spaces, the Park Renaissance Program develops projects to create improvements to our existing inventory, that is ten years or older. The program's projects strive to maintain the high standard of quality reflected in Markham's newer parks with a high level of design and visual appeal as it rejuvenates Markham's older parks.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	431,203	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	431,203	0
HST Impact:	7,589	0
Total Project Cost:	**438,800**	**0**

NOTES

New amenities at existing parks.
Plans for this year include;
Additional shade structure, location TBD (140K)
Shade Structure at Fairtree Park and Reeve Park (179K)
New park elements, play boards, chess table, covered tables.
Locations TBD (45K)
Basketball half court at Grand Cornell Park (75K)

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
DCA	394,920	0	0	0	0	0	0
Non-DC Growth	43,880	0	0	0	0	0	0
TOTAL FUNDING	**438,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20232

Project Cost: $221,600

Project Name: **Public Realm-Markham's Shared Places Our Spaces**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☐

Department: Operations - Business & Technical Services

Project Mgr: Tanya Lewinberg

Category: Major

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Markham's Public Realm is a long term program to create dynamic, beautiful public spaces that reflect our diverse social and cultural identity. Projects include enhancements that promote community engagement, beautification and sustainability, as well as the implementation of the Public Realm Strategy.

BUILDING MARKHAM'S FUTURE TOGETHER: Engaged, Diverse & Thriving City

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	207,000	0
Internal Charges:	11,000	0
External Consulting:	0	0
Sub Total:	218,000	0
HST Impact:	3,643	0
Total Project Cost:	**221,600**	**0**

NOTES

Carving Project bases and signs ($88K)
Adopt-a-park ($6k)
Graffiti Wall ($62K)
Museum Tree Carving ($8K)
8-80 Workshop Series ($36K)
Summer Student ($11k)
Keep Markham Beautiful Pamphlet ($5K)
Speaker Series ($6k)

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Tax	221,600	0	0	0	0	0	0
TOTAL FUNDING	**221,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20233

Project Cost: $68,800

Project Name: **Bridges and Culverts - Condition Inspection**

Commission: Community & Fire Services

Department: ES - Infrastructure

Project Mgr: Shipra Singh

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Hire a consultant to inspect vehicular bridges (9), pedestrian bridges (37), large culverts (37) (> 900mm), small culverts (up to 900mm) (26) and boardwalks (10) as mandated by Public Transportation and Highway Act - Regulation 104/97 to ensure public safety. A total of 119 structures will be inspected out of 347. This program ensures inspections take place within the regulated timelines. Refer to attached exhibit for inventory of structures and inspection frequency.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	67,600	0
Sub Total:	67,600	0
HST Impact:	1,190	0
Total Project Cost:	**68,800**	**0**

NOTES

This is an annual program. There is no backlog and structures are in a state of good repair.
Operations is responsible for preventative maintenance on bridges/culverts such as minor grading, patching, sealing of approaches and decks, and siltation removal from culverts, while Env. Services is responsible for its inspection, rehabilitation and replacement.
Unit cost is consistent with recent award plus inflation. Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	68,800	0	0	0	0	0	0
TOTAL FUNDING	**68,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	68,800
Amount Incl HST	68,800
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Project 20233 - Bridges and Culverts - Condition Inspection

As of May 2019

	Inspection Frequency	Inventory	2020 Budget	2020	2021	2022	2023
Vehicular Bridges	2 years	25		9	14	10	13
Pedestrian bridges	2 years	78		37	44	36	41
Boardwalks	2 years	10		10	0	10	0
Sub Total - Bridges		***113***	**#20XXX**	***56***	***58***	***56***	***54***
Large Culverts (Greater than or equal to 3000 mm)	2 years	60		24	31	25	32
Large Culverts (Greater than 900mm less than 3000mm)	4 years*	25		13	6	6	9
Small Culverts (Upto 900mm dia)	4 years*	130		26	35	16	37
Storm Sewer Culverts	4 years*	19		0	0	19	0
Sub Total - Culverts		***234***		***63***	***72***	***66***	***78***
Total		**347**		**119**	**130**	**122**	**132**

Note:

1. If the structure is under rehabilitation/replacement program, inspection is deferred until after warranty
2. * Some culverts are inspected every 2 years depending on their condition

2020 PROJECT FUNDING REQUEST FORM

Number: 20234

Project Cost: $25,900

Project Name: **Confined Space Assessment for Culverts**

Commission: Community & Fire Services

Department: ES - Infrastructure

Project Mgr: Shipra Singh

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Hire a consultant to assess the existing culverts (greater than 900mm diameter) and to validate City's assumptions/ develop the confined space entry and exit plans to meet the Occupational Health and Safety Act (OHSA).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	25,500	0
Sub Total:	25,500	0
HST Impact:	449	0
Total Project Cost:	**25,900**	**0**

NOTES

Total inventory 104 culverts (> 900mm diameter).
In 2010, 62 culverts (>900mm dia) were assessed and relevant confined space entry /exit plans were developed by an external consultant. This request is to carry out assessment of the remaining 42 culverts (>900mm dia) that were assumed since 2010. Currently, condition inspections of these 42 culverts were carried out under Confined Space protocol. No rehabilitation work has been carried out on these culverts to date. Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	25,900	0	0	0	0	0	0
TOTAL FUNDING	**25,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 25,900

Amount Incl HST 25,900

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Project 20234 - Confined Space Assessment for Culverts

As of May 2019

	Inspection Frequency	Inventory	Completed in 2010	Proposed in 2020	
Large Culverts (Greater than or equal to 3000 mm)	2 years	60	44	16	
Large Culverts (Greater than 900mm less than 3000mm)	4 years*	25	17	8	
Storm Sewer Culverts	4 years*	19	1	18	
Total - Culverts		***104***	*62*	*42*	

2020 PROJECT FUNDING REQUEST FORM

Number: 20235

Project Cost: $27,000

Project Name: **MNRF Monitoring for Capital Projects at Water Crossings**

Commission: Community & Fire Services

Department: ES - Infrastructure

Project Mgr: Prathapan Kumar

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Annual

Cost Validation: Recent awards

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Hire a Consultant to prepare reports to the Ministry of Natural Resources and Forestry (MNRF). Program commenced in 2016 as required under the Section 17, item 5e of the Endangered Species Act, 2007. Total of 20 site reports including 4 mitigation plans are required for 2020.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	26,500	0
Sub Total:	26,500	0
HST Impact:	466	0
Total Project Cost:	**27,000**	**0**

NOTES

This is an annual program. It is a requirement to submit the following to MNRF:
(a) Monitoring Reports every year for 5 years after the completion of capital works at water crossings; and
(b) Mitigation Plan Reports for some structures as determined by MNRF.
3 year average is not applicable as requirement varies each year. Unit cost is consistent with recent award plus inflation. Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	27,000	0	0	0	0	0	0
TOTAL FUNDING	**27,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 27,000

Amount Incl HST 27,000

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

20235 - MNRF Monitoring for Capital Projects at Water Crossings

		Monitoring Reports							
Year	**Project Completed that requires reporting**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021 (Est.)**	**2022 (Est.)**	**2023 (Est.)**
2015 Construction	8	8	8	8	8	8			
2016 Construction	1		1	1	1	1	1		
2017 Construction	3			3	3	3	3	3	
2018 Construction	1				1	1	1	1	1
2019 Construction	3					3	3	3	3
2020 Construction (Estimated)	1						1	1	1
Sub Total (Monitoring Reports)		***8***	***9***	***12***	***13***	***16***	***9***	***8***	***4***
Sub Total (Mitigation Plan, where required)						***4***	***5***	***5***	***5***
Total		**8**	**9**	**12**	**13**	**20**	**14**	**13**	**9**

2020 PROJECT FUNDING REQUEST FORM

Number: 20236

Project Cost: $645,100

Project Name: **Storm Sewer Pipes - Rehabilitation**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 25 Pre Approval: ☐

Department: ES - Infrastructure

Category: Major

Project Mgr: Shipra Singh

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Rehabilitation of deficient storm sewer pipes identified through CCTV (closed circuit television) inspection.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	538,900	0
Internal Charges:	0	0
External Consulting:	95,000	0
Sub Total:	633,900	0
HST Impact:	11,157	0
Total Project Cost:	**645,100**	**0**

NOTES

Storm sewer pipe rehabilitation is conducted once every two years. Approx. 80-90 km of storm sewers are inspected every year out of 923 km (10 year cycle). Based on the video inspections, deficient pipe sections are identified and rehabilitated. Budget request is based on last 3 years historical average annual spend of $642K. There is no substantial backlog. Storm sewer pipes are in a state of good repair. Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Consulting	Construction			TOTAL	Future Phases
Gas Tax	479,365	71,835	407,530	0	0	479,365	0
Operating Funded Life Cycle	165,735	24,837	140,898	0	0	165,735	0
TOTAL FUNDING	**645,100**					**645,100**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 645,100

Amount Incl HST 165,700

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Project	**Storm Sewer Pipes Rehabilitation**
2020 Capital Request	$645,100
Funding Source	Life Cycle Reserve
Description of Program	Rehabilitation of deficient storm sewer pipes identified through CCTV (closed circuit television) inspection.
Project Rationale	Deficient storm sewer pipes need to be rehabilitated to prevent flooding. If not rehabilitated, pipes will continue to deteriorate and the cost of rehabilitation will increase.
Legislative Requirement	None
History	Storm sewer pipe rehabilitation is conducted once every two years.
Future Phases	Varies - Based on the outcome of the annual CCTV inspection results
Total Project Cost (incl. all phases)	• Estimated cost $400k - $650k every two years • 25 Years Life Cycle Cost $6.6M
Related Projects	• CCTV Inspection
Related Maps	-
Alignment to the Strategic Plan	Safe and Sustainable Community • Replacing/ repairing deficient pipe section will eliminate risk of flooding and minimize disruption to the community

2020 PROJECT FUNDING REQUEST FORM

Number: 20237

Project Cost: $1,585,200

Project Name: **Storm/Sanitary Sewer & Sanitary Laterals CCTV Inspection**

Commission: Community & Fire Services

Department: ES - Infrastructure

Project Mgr: Shipra Singh

Ward(s): CW ☐ 1 ☐ 2 ☑ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program to determine the condition of the storm, sanitary sewers and sanitary laterals using closed circuit television (CCTV) inspection. Pipe rehabilitation/ replacement programs will be developed based on the condition inspection results. In 2019, storm, sanitary sewers and sanitary laterals inspection programs were re-evaluated and consolidated into one project. 2020 Program:
(a) 90 km storm sewers out of total 923 km (tax funded); (b) 91 km sanitary sewers out of total 918 km (waterworks funded); (c) 6,946 sanitary lateral out of total estimated 53,505 (waterworks funded)

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	1,507,776	13,230,081
Internal Charges:	0	0
External Consulting:	50,000	0
Sub Total:	1,557,776	13,230,081
HST Impact:	27,417	232,849
Total Project Cost:	**1,585,200**	**13,462,900**

NOTES

This is an annual program (10 year cycle) - Phase 2 of 10. Program has been revamped to consolidate all three CCTV inspections (storm + sanitary + sanitary laterals) into one as part of the Pipes Group.
External consultant is retained to identify deficiencies on CCTV inspection. Unit cost is consistent with recent award.
Operating Budget Impact: Sanitary sewer flushing which was previously carried out through operating budget will now be done through this project.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Contractor	Components: Consultant			TOTAL	Future Phases
Operating Funded Life Cycle	228,200	202,760	25,440	0	0	228,200	3,030,000
Waterworks	1,357,000	1,331,560	25,440	0	0	1,357,000	10,432,900
TOTAL FUNDING	**1,585,200**					**1,585,200**	**13,462,900**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	-$92,603	$0	-$92,603

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	190,100
Amount Incl HST	228,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Only the storm portion of CCTV inspection is included in the 2019 Life Cycle. 2020 budget amount based on tender prices in June 2019, which is higher than what was in the 2019 Life Cycle Reserve Study. 2020 Life Cycle Study will be updated accordingly.

<table>
<tr><td>Project</td><td>Storm/ Sanitary Sewer & Sanitary Laterals CCTV Inspection</td></tr>
<tr><td>2020 Capital Request</td><td>$1,585,200</td></tr>
<tr><td>Funding Source</td><td>Life Cycle Reserve (storm) and Waterworks Reserve (sanitary)</td></tr>
<tr><td>Description of Program</td><td>Program to determine the condition of the storm, sanitary sewers and sanitary laterals using closed circuit television (CCTV) inspection. This is an annual program (10 year cycle) - Phase 2 of 10.</td></tr>
<tr><td>Project Rationale</td><td>Storm & sanitary sewer rehabilitation/ replacement programs are developed based on condition inspection results.</td></tr>
<tr><td>Legislative Requirement</td><td>None</td></tr>
<tr><td>History</td><td>In 2019, storm, sanitary sewers and sanitary laterals inspection programs were re-evaluated and consolidated into one project as part of Pipe Group. 2020 Program:
90 km storm sewers out of total 923 km (tax funded);
91 km sanitary sewers out of total 918 km (waterworks funded);
6,946 sanitary lateral out of total estimated 53,505 (waterworks funded)</td></tr>
<tr><td>Future Phases</td><td>
<table>
<tr><th>Phase #</th><th>Inspection year</th><th>Cost (Excl. HST</th><th>Budget Cost (Incl. HST)</th><th>Comments</th></tr>
<tr><td>Phase 1</td><td>2019</td><td>$ 557,689</td><td>$ 567,500</td><td>52 km storm; 52 km sanitary; 1,400 laterals</td></tr>
<tr><td>Phase 2</td><td>2020</td><td>$ 1,557,776</td><td>$ 1,585,200</td><td>90 km storm; 91 km sanitary; 6,946 laterals</td></tr>
<tr><td>Phase 3 to Phase 10</td><td>2021 - 2028</td><td>$ 13,230,081</td><td>$ 13,462,900</td><td>Future phases</td></tr>
<tr><td colspan="2">Total</td><td>$ 15,345,545</td><td>$ 15,615,600</td><td></td></tr>
<tr><td colspan="3">Future Phases Cost (2021- 2028)</td><td>$ 13,462,900</td><td></td></tr>
</table>
</td></tr>
<tr><td>Total Project Cost (incl. all phases)</td><td>One cycle cost (10 years) - $15.6M</td></tr>
<tr><td>Related Projects</td><td>Storm Sewer Pipes Rehabilitation
Sanitary Sewers - Rehabilitation</td></tr>
<tr><td>Related Maps</td><td>Program Map
2020 Location Map</td></tr>
<tr><td>Alignment to the Strategic Plan</td><td>Safe and Sustainable Community
Replacing/ repairing deficient pipe section will eliminate risk of flooding and minimize disruption to the community</td></tr>
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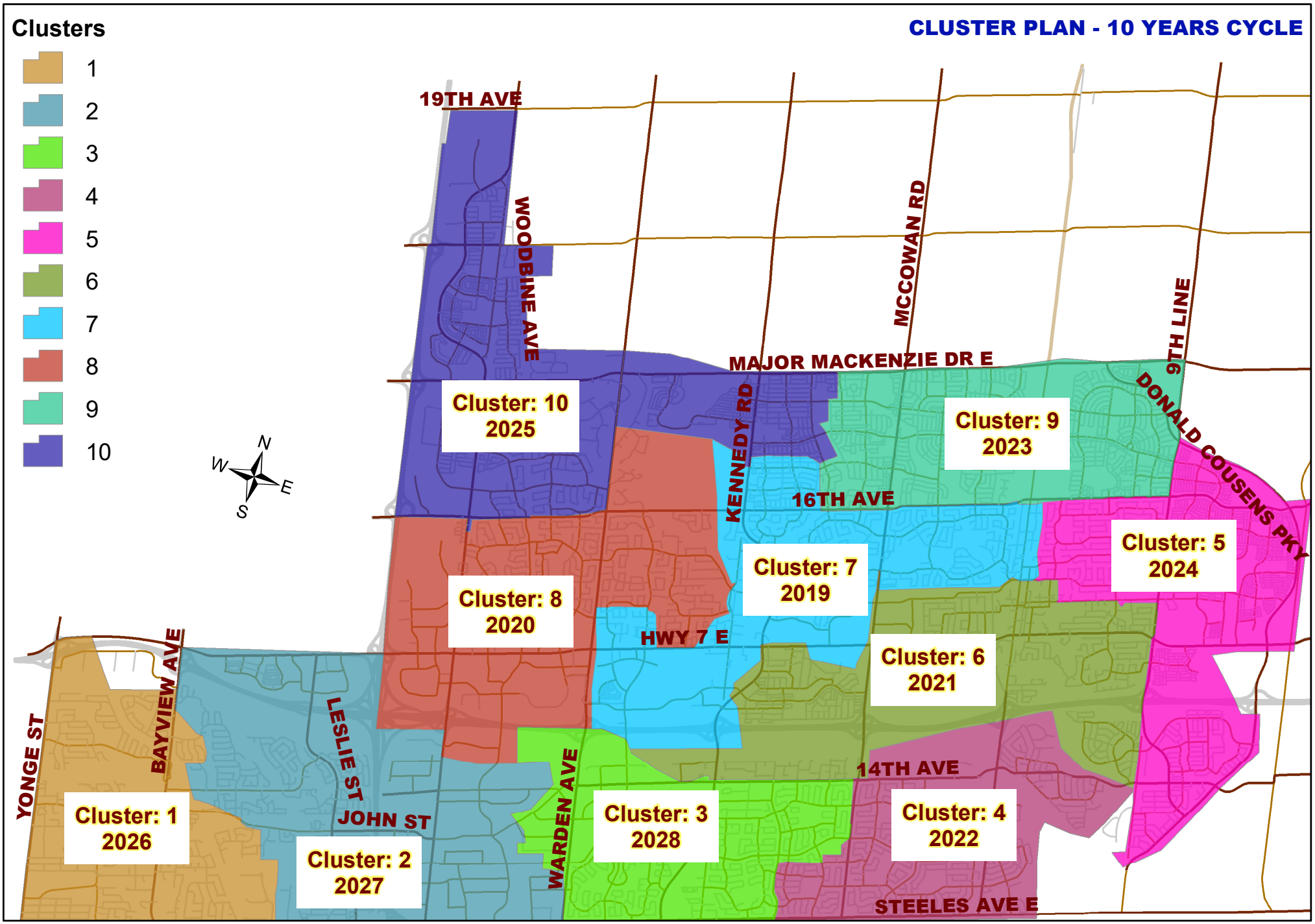
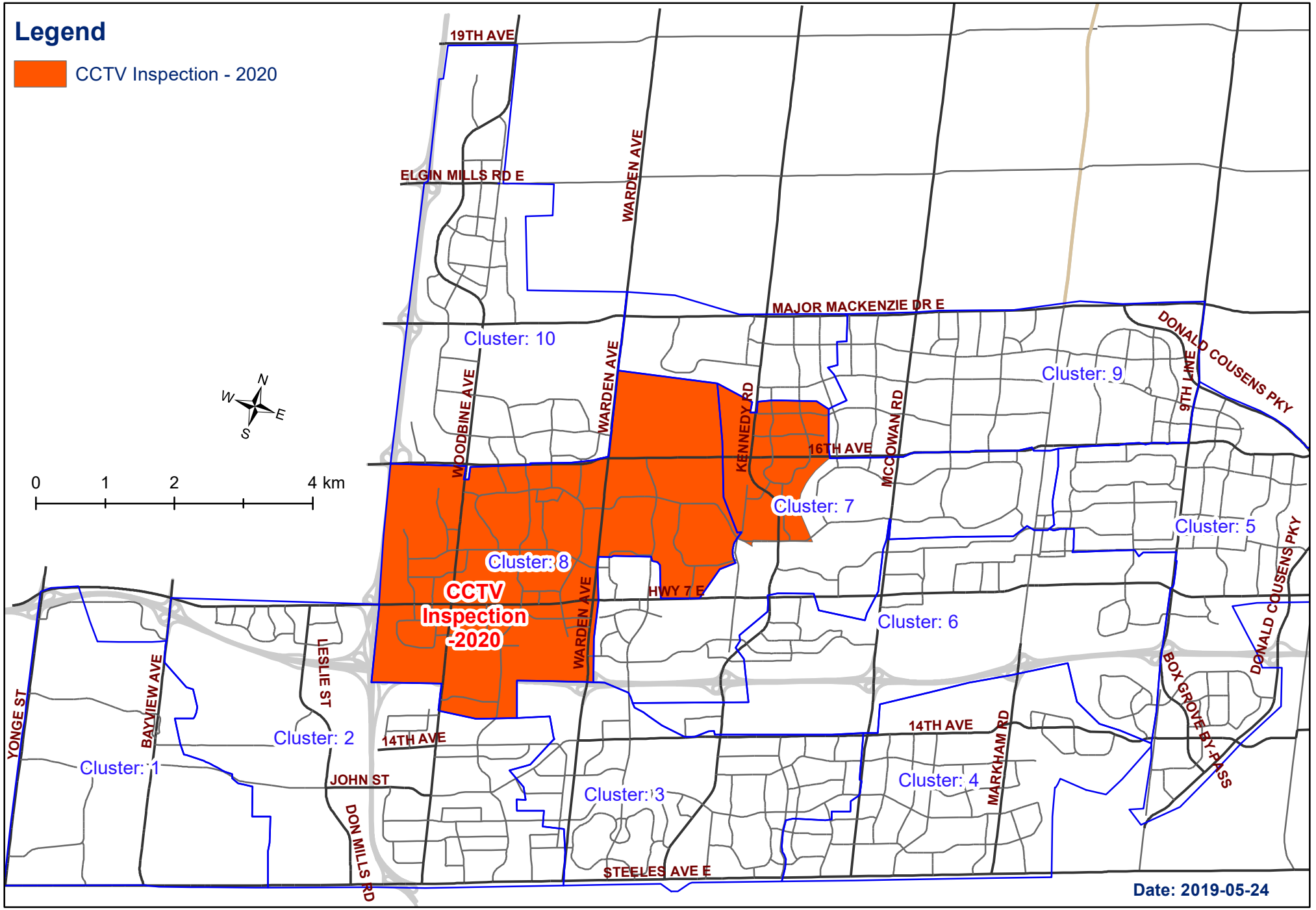
MARKHAM SANITARY AND STORM SEWER - CCTV INSPECTION



Location Map
Storm/Sanitary Sewer & Sanitary Laterals CCTV Inspection

ES - Infrastructure (2020)



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2020 PROJECT FUNDING REQUEST FORM

Number: 20238

Project Cost: $106,300

Project Name: **Stormwater Pumping Stations - Maintenance**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 1 Pre Approval: ☐

Department: ES - Infrastructure

Category: Minor

Project Mgr: Eddy Wu

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Regular maintenance of the pumps and associated equipment at two stormwater pumping stations (SWPS) at Enterprise Drive and 14th Ave. (Hagerman Diamond).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	104,500	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	104,500	0
HST Impact:	1,839	0
Total Project Cost:	**106,300**	**0**

NOTES

This is an annual program.
In 2017, staff retained a consultant to carry out the condition assessment of two stormwater pumping stations – Enterprise Drive SWPS and Hagerman Diamond SWPS. Based on the inspection, the consultant recommended to overhaul nine (9) pumps as part of regular maintenance work.
Cost estimate provided by consultant. Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	106,300	0	0	0	0	0	0
TOTAL FUNDING	**106,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	106,300
Amount Incl HST	106,300
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20239

Project Cost: $2,190,800

Project Name: **Streetlight Poles & Cable Replacement (Varley Village)**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 60 Pre Approval: ☑

Department: ES - Infrastructure

Category: Major

Project Mgr: Prathapan Kumar

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of aged underground streetlight cables and non-standard galvanized short street poles in Varley Village Area (refer to attached map).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	1,790,957	0
Internal Charges:	0	0
External Consulting:	362,000	0
Sub Total:	2,152,957	0
HST Impact:	37,892	0
Total Project Cost:	**2,190,800**	**0**

NOTES

This project includes replacement of aged underground streetlight cables and non-standard short galvanized streetlight poles (approx. 120-140 poles based on design outcome).
Unit cost is consistent with recent award plus inflation.
Amount requested is consistent with 2019 Life Cycle Reserve Study Update.
Energy savings due to LED fixtures is $7,260/year.
The pre-approval request of $362,000 is for design work only.

SOURCE(S) OF FUNDING ($)		Components				Future
Funding Type	Budget	Design + CA	Construction		TOTAL	Phases
Operating Funded Life Cycle	2,190,800	368,371	1,822,429	0	2,190,800	0
TOTAL FUNDING	**2,190,800**				**2,190,800**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	-$7,260	$0	-$7,260

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 2,190,900

Amount Incl HST 2,190,900

Year in the study 2026

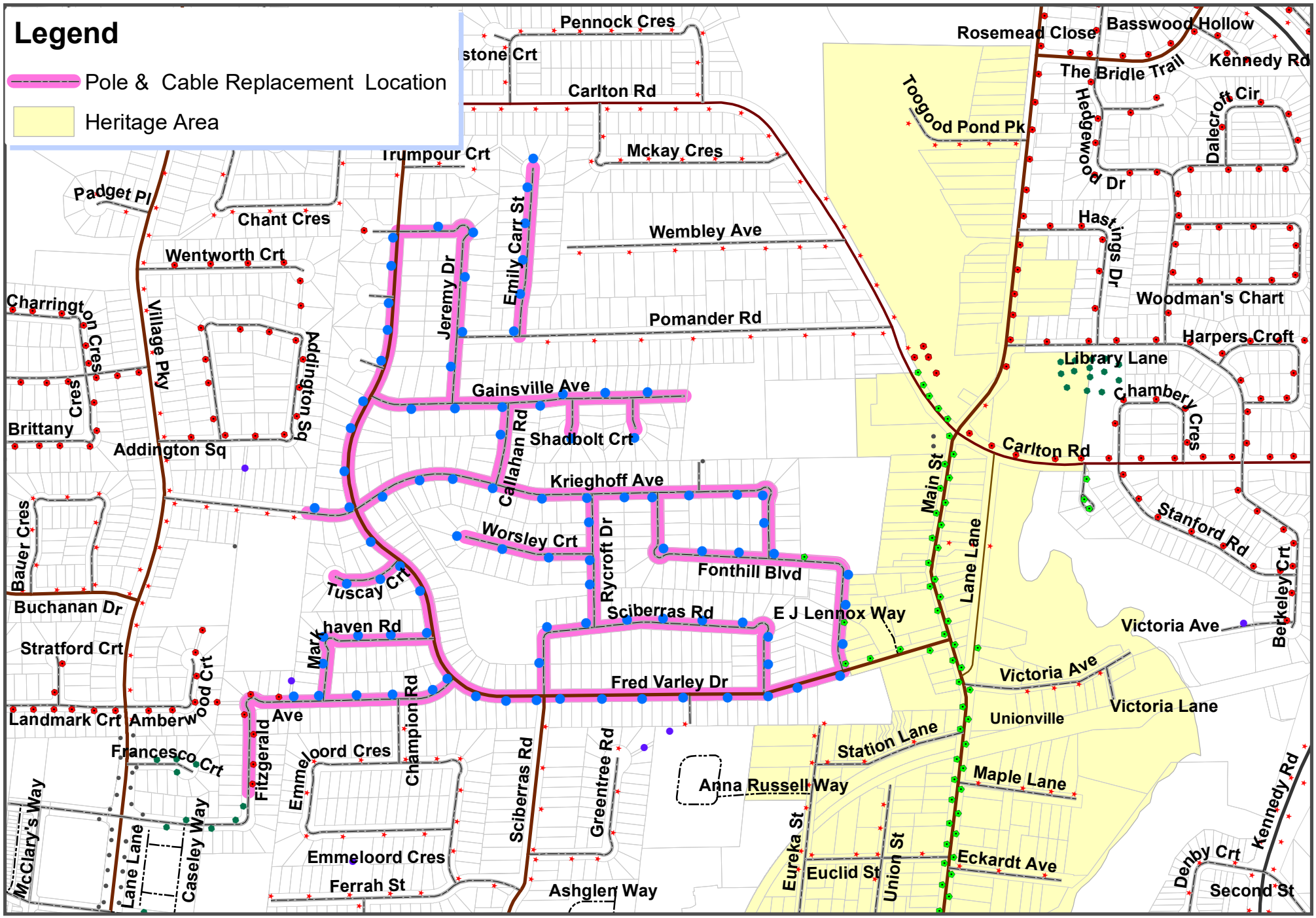
DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

These streetlight poles and cables were originally scheduled for replacement between 2026-2032. However, it has been accelerated due to condition assessment. 2020 Life Cycle will be updated to reflect the changes.

Project	**Streetlight Poles & Cable Replacement (Varley Village)**
2020 Capital Request	$2,190,800
Funding Source	Life Cycle Reserve
Description of Program	Replacement of aged underground streetlight cables and non-standard galvanized short street poles in Varley Village Area
Project Rationale	To enhance street lighting levels in older areas in order to improve public safety
Legislative Requirement	None
History	Annually 20-25 new streetlights are installed based on complaints from the residents due to inadequate lighting through Streetlights – Miscellaneous Requests Capital Project.
Future Phases	None
Total Project Cost (incl. all phases)	$2,190,800
Related Projects	• Streetlights – Poles Condition Inspection • Streetlights – Underground Cable Condition Inspection • Streetlights – Poles Replacement Program • Streetlights – Underground Cable Replacement Program • Streetlights – Miscellaneous Requests
Related Maps/Documents	• Location Map • Streetlighting Comparison
Alignment to the Strategic Plan	Safe and Sustainable Community • Improves public safety

Streetlight Poles and Cable Replacement (Varley Village)

ES - Infrastructure (2020)



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PDF Date: 2019-06-19

Streetlight Poles & Cable Replacement (Varley Village)

Streetlighting Comparison

EXISTING: Fred Varley Dr with Decorative HPS **Do not meet minimum Lighting Levels**	**Street with LED Cobrahead Lighting** **Meets minimum Lighting levels**

2020 PROJECT FUNDING REQUEST FORM

Number: 20240

Project Cost: $152,600

Project Name: **Streetlights - Miscellaneous Requests**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 60 Pre Approval: ☐

Department: ES - Infrastructure

Category: Minor

Project Mgr: Prathapan Kumar

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Based on photometric analysis and evaluation against lighting level standards IES -RP8-14 (Illuminating Engineering Society) by Staff, the City will install new streetlights. Note that the standard varies depending on road type and pedestrian activity.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	150,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	150,000	0
HST Impact:	2,640	0
Total Project Cost:	**152,600**	**0**

NOTES

This is an annual program. Streetlights requests from the residents are reviewed for justification and are implemented to improve lighting levels in older areas.
Locations will be prioritized based on photometric analysis and this budget request is to install approx. 20-25 new poles with LED fixtures.
Unit cost is consistent with recent award plus inflation.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Tax	152,600	0	0	0	0	0	0
TOTAL FUNDING	**152,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20241

Project Cost: $92,000

Project Name: **Streetlights - Pole Condition Inspection Program**

Studies/Pilot Programs

Commission: Community & Fire Services

Useful Life: 60 Pre Approval: ☐

Department: ES - Infrastructure

Category: Minor

Project Mgr: Shipra Singh

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Inspection program to verify the condition of approx 8,350 streetlight poles out of 24,983 city owned poles.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	90,400	0
Sub Total:	90,400	0
HST Impact:	1,591	0
Total Project Cost:	**92,000**	**0**

NOTES

Service life of streetlight poles is estimated to be 40-60 years.
Based on the condition inspection, streetlight poles are identified for replacement/rehabilitation.
Unit cost is consistent with recent award plus inflation.
Inspection frequency: Every 3 years
Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	92,000	92,000	0	0	0	92,000	0
TOTAL FUNDING	**92,000**					**92,000**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	92,000
Amount Incl HST	92,000
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Location Map
Streetlights - Pole Condition Inspection Program

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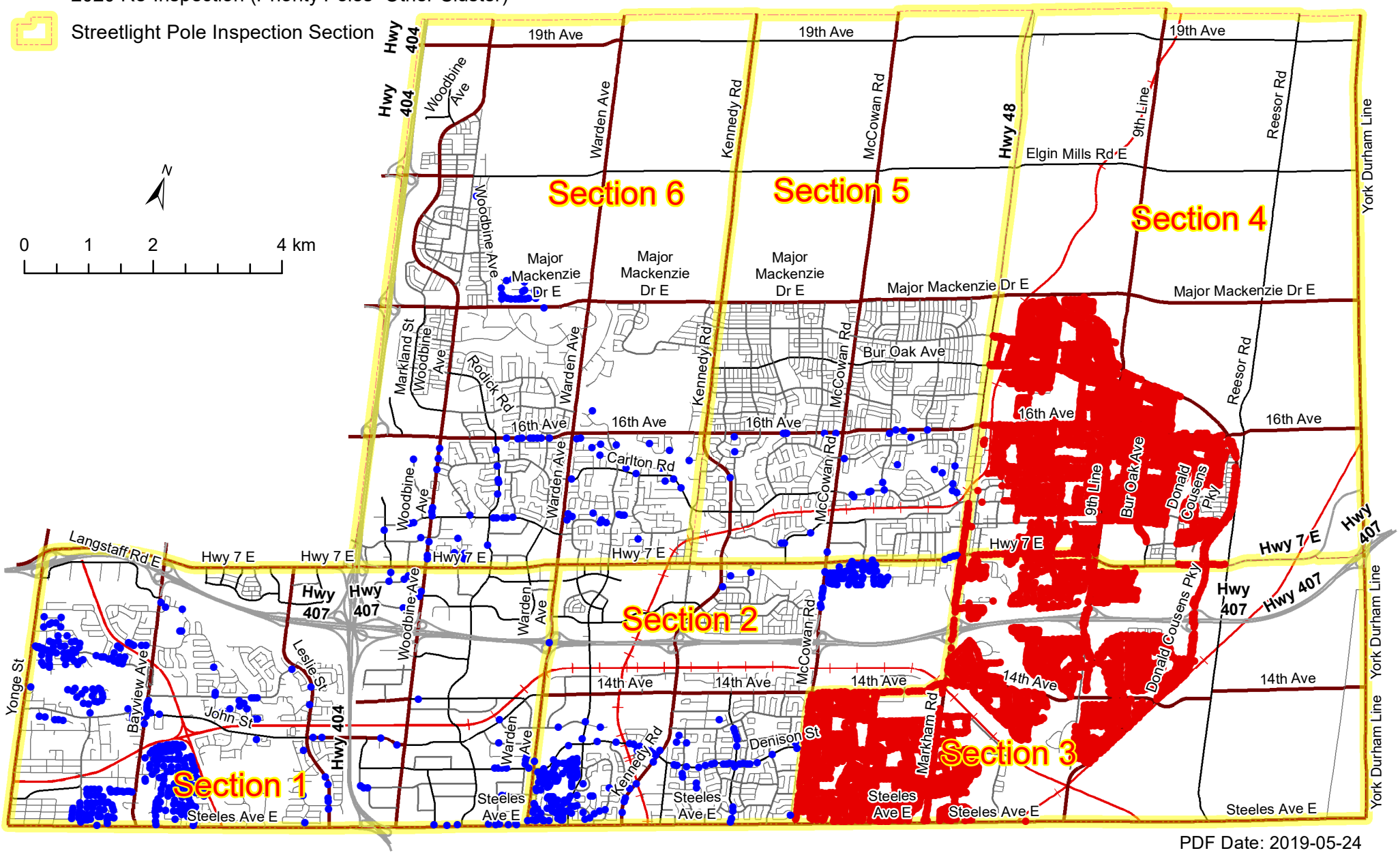
ES - Infrastructure (2020)

Legend

- 2020 Inspection Regular Inspection (Cluster 3 & 4)
- 2020 Re-Inspection (Priority Poles Other Cluster)
- Streetlight Pole Inspection Section



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2020 PROJECT FUNDING REQUEST FORM

Number: 20242

Project Cost: $124,200

Project Name: **Streetlights - Poles Replacement Program**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 60 Pre Approval: ☐

Department: ES - Infrastructure

Category: Minor

Project Mgr: Prathapan Kumar

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program to replace/repair deteriorated streetlight poles identified through 2020 streetlight poles condition inspection and internal inspection.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	122,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	122,100	0
HST Impact:	2,149	0
Total Project Cost:	**124,200**	**0**

NOTES

This is an annual program. City's current inventory is 24,983 poles. Based on the age of streetlight poles, staff estimates the following as part of this request:

- 25-30 pole replacements
- 10-20 minor pole rehabilitation work

The above quantity will be updated depending on the results of the streetlight pole condition inspection project in 2020. Unit cost is consistent with recent award plus inflation. Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components				TOTAL	Future Phases
Operating Funded Life Cycle	124,200	0	0	0	0	0	0
TOTAL FUNDING	**124,200**					**0**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	124,200
Amount Incl HST	124,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20243

Project Cost: $187,200

Project Name: **Streetlights - Underground Cable Condition Inspection**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 55 Pre Approval: ☐

Department: ES - Infrastructure

Category: Minor

Project Mgr: Shipra Singh

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☑ 2 ☑ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Inspection program to verify the condition of approx 100 km of underground streetlight cables.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	184,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	184,000	0
HST Impact:	3,238	0
Total Project Cost:	**187,200**	**0**

NOTES

Service life of underground streetlight cables is estimated to be 40 - 55 years. City's current cable inventory is 1039 km. To date, 254 km of cable has been inspected. Based on this condition inspection, underground streetlight cable lengths will be identified for replacement.
Program frequency: Every 5 years
Unit cost is consistent with recent award plus inflation.
Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	187,200	0	0	0	0	0	0
TOTAL FUNDING	**187,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

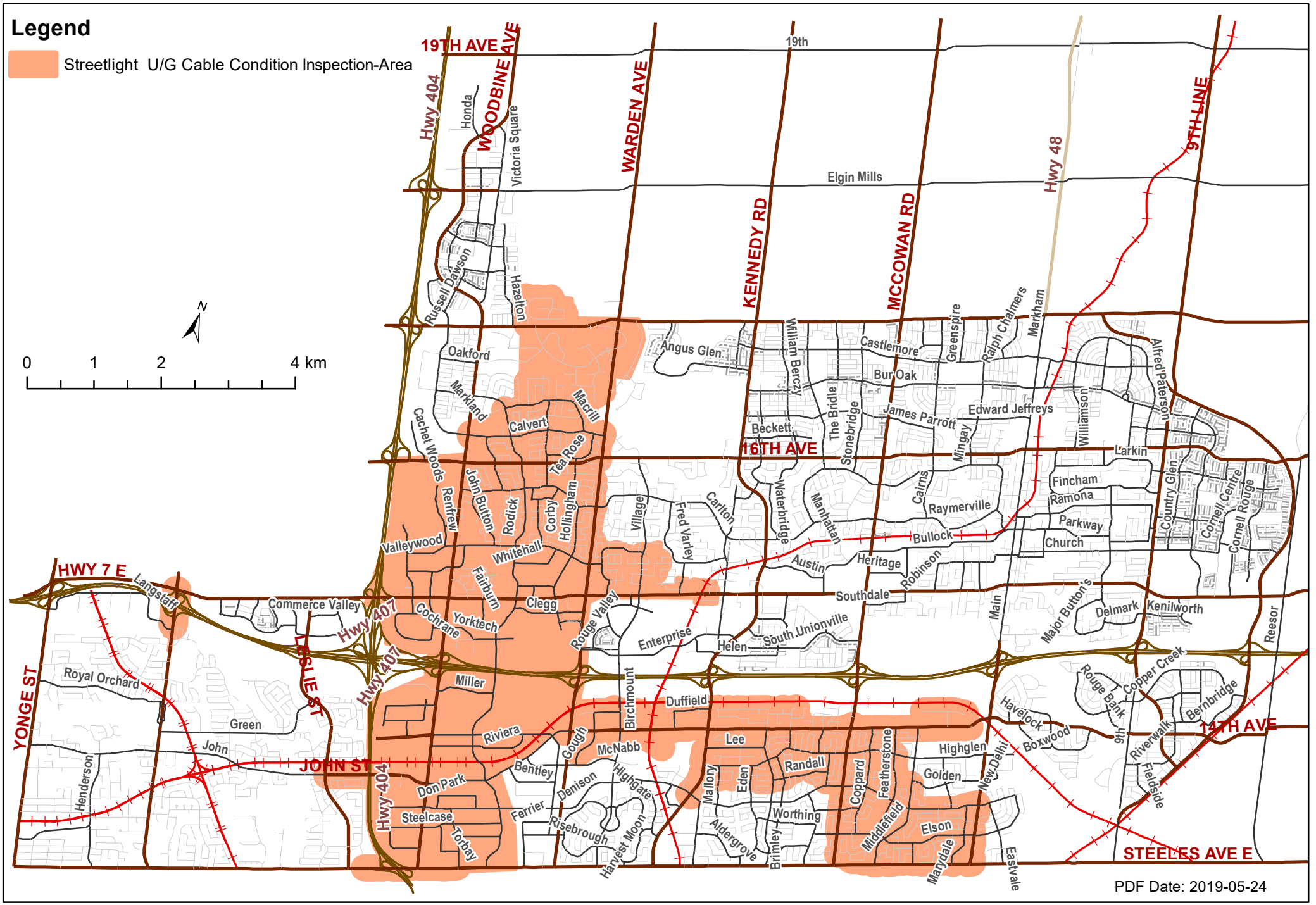
Life Cycle

Amount in Study:	187,200
Amount Incl HST	187,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Location Map
Streetlights - Underground Cable Condition Inspection

577
ES - Infrastructure (2020)



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2020 PROJECT FUNDING REQUEST FORM

Number: 20244

Project Cost: $145,500

Project Name: **Structures Program-Full-time Staff**

Commission: Community & Fire Services

Department: ES - Infrastructure

Project Mgr: Prathapan Kumar

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: Pre Approval: ☐

Category: Annual

Cost Validation: Other(specify in Notes)

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This funds one Senior Project Engineer (existing Permanent Full-Time staff) position.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	145,500	0
External Consulting:	0	0
Sub Total:	145,500	0
HST Impact:	0	0
Total Project Cost:	**145,500**	**0**

NOTES

This is an annual program. The annual structures (bridges and culverts) program includes detailed visual inspection, condition survey/design and cost effective maintenance program. The results are used to identify the structures that require rehabilitation. Rehabilitation of structures improves the overall condition and increase the service life. Amount requested is consistent with 2019 Life Cycle Reserve Study Update.
Requirement validation: This position is critical to support structures rehabilitation projects for the City-owned structures.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	145,500	0	0	0	0	0	0
TOTAL FUNDING	**145,500**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 145,500

Amount Incl HST 145,500

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20245

Project Cost: $607,200

Project Name: **Structures Rehabilitation (5 Structures) - Design & Const.**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☑

Department: ES - Infrastructure

Category: Major

Project Mgr: Prathapan Kumar

Cost Validation: Multiple(specify)

Ward(s): CW ☐ 1 ☑ 2 ☑ 3 ☑ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Design and construction for rehabilitation of 5 structures (4 pedestrian bridges and 1 culvert). P005: Pomona Mills Park 95m W/Park Brook Rd; P012: Markham Civic Centre 15m W/Warden Ave; P083: Apple Creek North Park 60m NW/ Hoodview Ct.; P091: Toogood Pond 140m S/ Normandale Rd and Delhi Cres.; C089: Bur Oak Ave 245m E/Hwy 48. See attached map for locations.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	446,700	0
Internal Charges:	0	0
External Consulting:	150,000	0
Sub Total:	596,700	0
HST Impact:	10,502	0
Total Project Cost:	**607,200**	**0**

NOTES

This project includes rehabilitation of 5 structures (P005, P012, P083, P091, C089). Operations is responsible for preventative maintenance on bridges/culverts such as minor grading, patching, sealing of bridge approaches and decks, and siltation removal from culverts, while Env. Services is responsible for its inspection/ rehabilitation and replacement. Cost Validation: Recent award and external reviews. Amount requested is consistent with 2019 Life Cycle Reserve Study update. The pre-approval request of $150,000 is for design work.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Design + CA	Components: Construction			TOTAL	Future Phases
Operating Funded Life Cycle	607,200	152,640	454,560	0	0	607,200	0
TOTAL FUNDING	**607,200**					**607,200**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

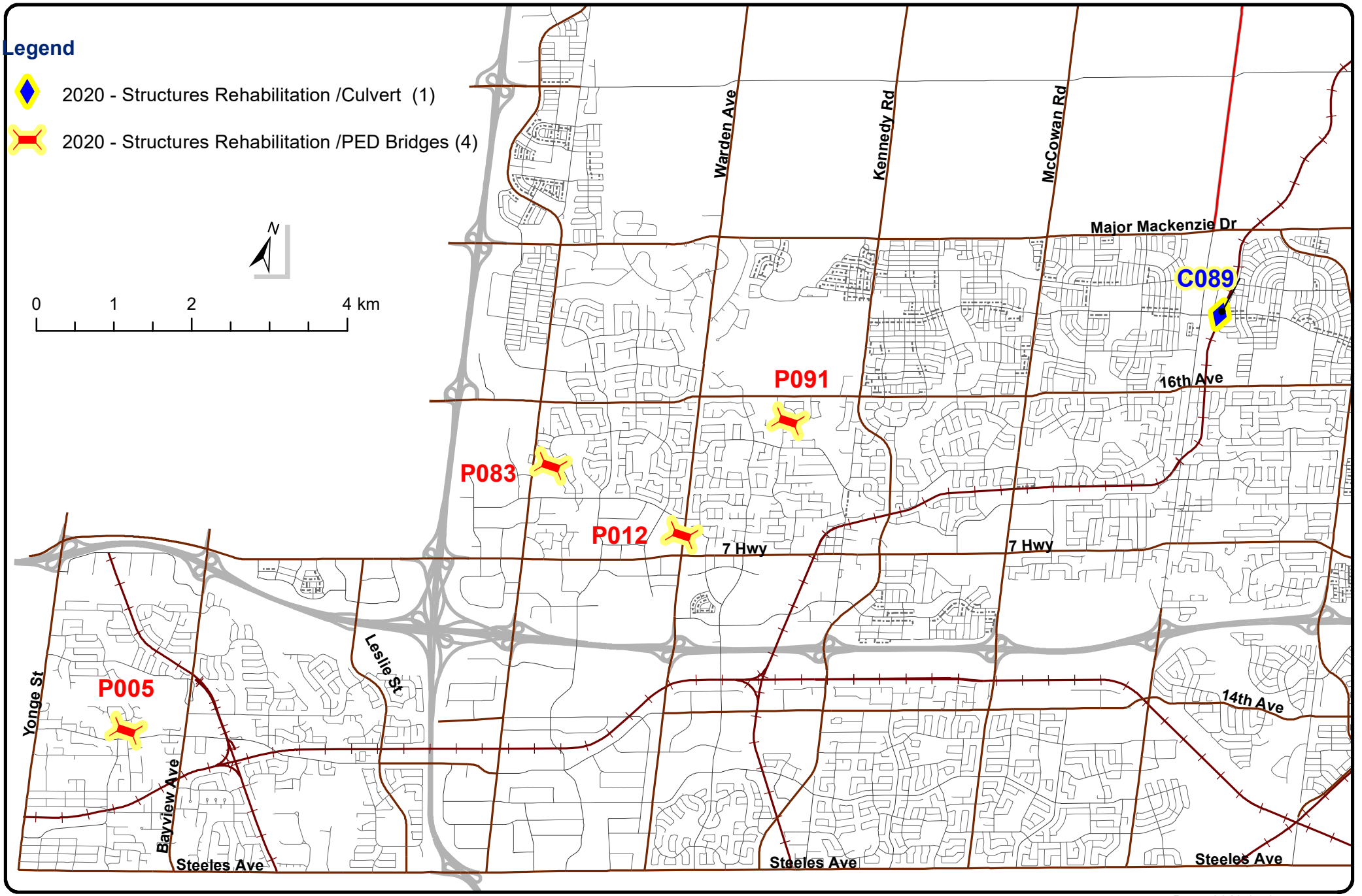
Amount in Study:	607,200
Amount Incl HST	607,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Project	**Structural Rehabilitation (5 Structures) – Design & Construction**
2020 Capital Request	$607,200
Funding Source	Life Cycle Reserve
Description of Program	Design and construction for rehabilitation of 5 structures (4 pedestrian bridges and 1 culvert). • P005: Pomona Mills Park 95m W/Park Brook Road; • P012: Markham Civic Centre 15m W/Warden Avenue; • P083: Apple Creek North Park 60m NW/ Hoodview Court; • P091: Toogood Pond 140m S/ Normandale Road and Delhi Crescent; • C089: Bur Oak Ave 245m E/ Hwy 48.
Project Rationale	2017/2018 Structures visual inspection indicated that rehabilitation is required for these structures to prevent further deterioration and ensure public safety. If not rehabilitated in a timely manner, structures will continue to deteriorate further cost of rehabilitation will increase.
Legislative Requirement	Yes – Mandated by Public Transportation and Highway Act - Regulation 104/97
History	Based on the structures condition inspections, deficient structures are identified and rehabilitated.
Future Phases	Based on the outcome of the annual structural condition inspection results
Total Project Cost (incl. all phases)	Varies
Related Projects	• Bridges and Culverts – Condition Inspection
Related Maps	• Location Map
Alignment to the Strategic Plan	Safe and Sustainable Community • Effective structures rehabilitation program improves overall transportation accessibility, public safety and supports City's vision for sustainable community

Location Map:
Structures Rehabilitation (5 Structures) - Design & Const.

ES - Infrastructure (2020)



2020 PROJECT FUNDING REQUEST FORM

Number: 20246

Project Cost: $20,100

Project Name: **Toogood Dam - Structural Inspection**

Commission: Community & Fire Services

Department: ES - Infrastructure

Project Mgr: Shipra Singh

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This is a new program starting in 2020 to carry out visual condition inspection and in-water inspection of Toogood Dam to comply with Ontario Ministry of Natural Resources (OMNR) Guideline entitled "Public Safety Around Dams, Best Management Practices" as per 2018 Consultant's Report (Toogood Dam Safety Review). Refer to attached map.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	19,800	0
Sub Total:	19,800	0
HST Impact:	348	0
Total Project Cost:	**20,100**	**0**

NOTES

Visual condition inspection will be carried out annually while the in-water inspection for the Dam will be carried out every 5 years. Toogood Dam was constructed in 1960. The City owns the Dam as it provides very little flood control benefit.
For reference, Milne Dam is owned and operated by TRCA as it was built specifically for flood control.
Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	20,100	0	0	0	0	0	0
TOTAL FUNDING	**20,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

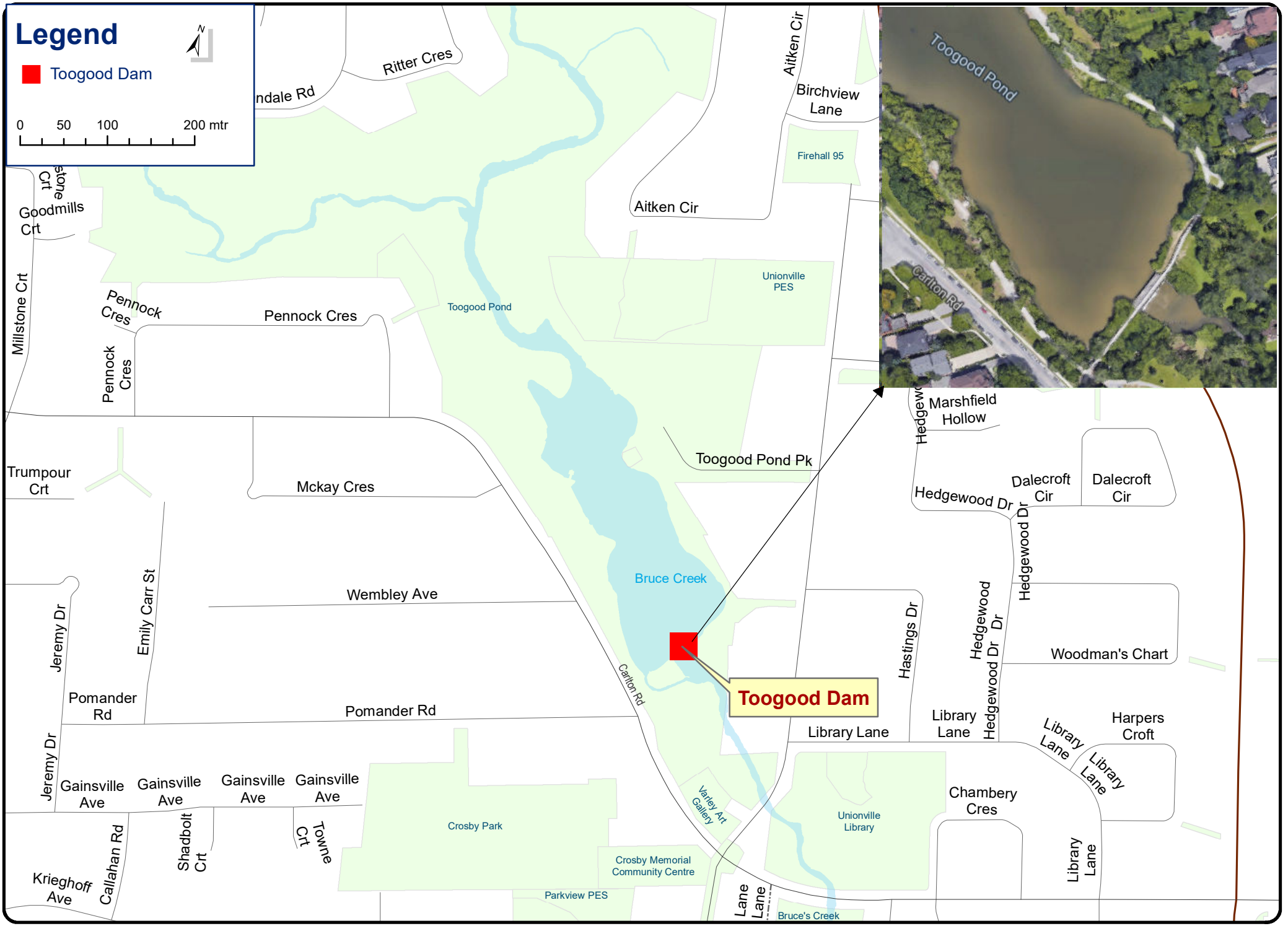
DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	20,100
Amount Incl HST	20,100
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Location Map
Toogood Dam Structural Inspection



2020 PROJECT FUNDING REQUEST FORM

Number: 20247

Project Cost: $223,900

Project Name: **German Mills Settlers Park Erosion Protection-Cost Sharing**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 50 Pre Approval: ☐

Department: ES - Stormwater

Category: Major

Project Mgr: Kate Rothwell

Cost Validation: Third party estimate

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to cost share with the Region of York/ TRCA for the replacement of pedestrian bridge (P025) with an extended bridge due to re-alignment of the watercourse to protect the Regional and City's infrastructure in this area (refer to attached map).
Region/ TRCA's EA identified that the current pedestrian bridge orientation directs the flow of the German Mills Creek towards the Region's trunk sanitary sewer which causes bank erosion. The bridge needs to be re-aligned and extended in order to align with the new watercourse alignment. City's share for pedestrian bridge replacement and erosion works is estimated by the Region to a maximum limit of $220K. Region/ TRCA will manage the project.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	220,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	220,000	0
HST Impact:	3,872	0
Total Project Cost:	**223,900**	**0**

NOTES

In 2018, the Region/ TRCA approached the City to cost share the portion of erosion restoration works. As per Life Cycle, P025 was originally scheduled for rehabilitation in 2022 ($101K) and replacement in 2053 ($316K). As part of the work, Region/ TRCA will restore four (4) City-owned erosion sites at a cost of approx. $321K, which were scheduled in the next 5 years. The above works (738K) will no longer be required in the Life Cycle Reserve Study by proceeding with this project.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	223,900	0	0	0	0	0	0
TOTAL FUNDING	**223,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

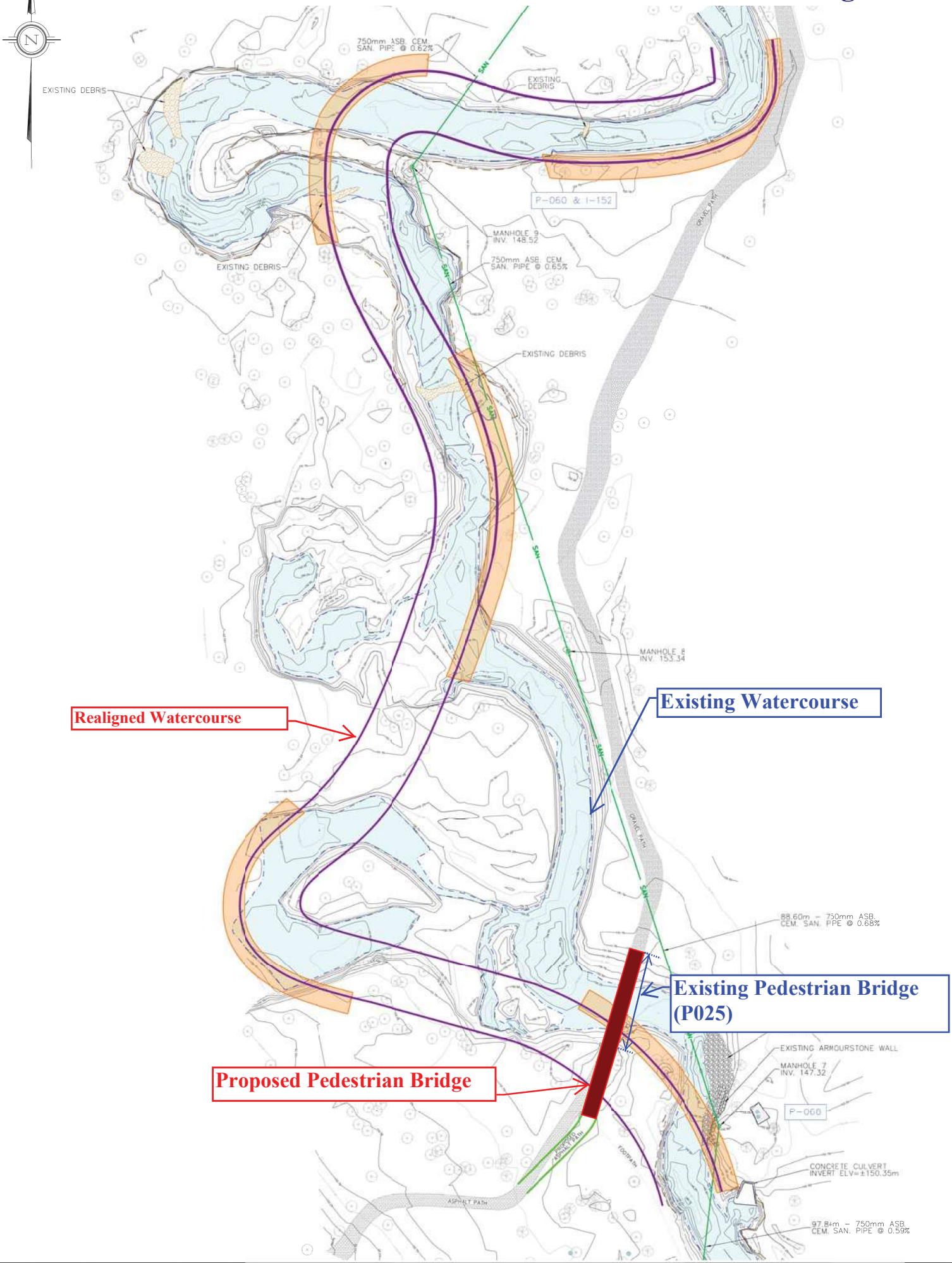
Life Cycle

Amount in Study:	223,900
Amount Incl HST	223,900
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2019 Life Cycle Reserve Study includes rehabilitation cost of $101K in 2022 and a replacement cost of $316K in 2053 for P025 as well as $321K for four (4) erosion site restoration works in 2023. These restoration works are no longer required by proceeding with this project. 2020 Life Cycle will be updated to reflect the changes.

German Mills Settlers Park Erosion Protection-Cost Sharing



2020 PROJECT FUNDING REQUEST FORM

Number: 20248

Project Cost: $215,400

Project Name: **Oil Grit Separators (OGS) - Inspection and Cleaning**

Studies/Pilot Programs

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☐

Department: ES - Stormwater

Category: Minor

Project Mgr: Alan Manlucu

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

OGS are structures consisting of one or more chambers that remove sediment, screen debris, and separate oil from stormwater run-off prior to stormwater being discharged downstream. The accumulated pollutants need to be removed as part of a regular maintenance program. The inspection program will identify the OGS that require cleaning. Inventory: 40. Inspection frequency is twice a year. All 40 OGS will be cleaned in 2020.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	211,700	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	211,700	0
HST Impact:	3,726	0
Total Project Cost:	**215,400**	**0**

NOTES

This is an annual program.
Future requests may be adjusted based on inspection results.
Requirement Validation: Condition assessment & legislative compliance (Section 53 of Ontario Water Resources Act)
2019 Project Status: OGS inspection will be carried out in Winter 2019. OGS cleaning tender will be released in July 2019.
Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Inspection	Components: Cleaning			TOTAL	Future Phases
Operating Funded Life Cycle	215,400	19,000	196,400	0	0	215,400	0
TOTAL FUNDING	**215,400**					**215,400**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	215,400
Amount Incl HST	215,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20249

Project Cost: $1,094,200

Project Name: **SWM Pond Cleaning - Ponds ID#25 & ID#67**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: ES - Stormwater

Category: Major

Project Mgr: Alan Manlucu

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☑ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Sediment cleaning, maintenance and repairs to 2 stormwater management (SWM) ponds: Pond #25: Commerce Valley East Pond (Ward 8) with current sediment level: 71% and Pond #67: Hillmount Park Pond (Ward 2) with current sediment level of 85%. Refer to attached location map.
SWM Ponds require maintenance to function efficiently. Sediment levels need to be monitored and when the percentage of accumulated sediment is above regulatory limits (varies depending on the pond design), ponds need to be cleaned to ensure that the approved quality control function of the pond is maintained.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	1,015,300	0
Internal Charges:	0	0
External Consulting:	60,000	0
Sub Total:	1,075,300	0
HST Impact:	18,925	0
Total Project Cost:	**1,094,200**	**0**

NOTES

Total inventory: 56 wet ponds
Requirement Validation: Condition assessment & Legislative compliance (Section 53, Ontario Water Resources Act).
Operations is responsible for minor above ground maintenance on SWM ponds while ES is responsible for all other aspects including inspection, sediment cleaning, rehabilitation and flood control strategies. Unit cost is consistent with recent award plus inflation. Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Consulting	Construction			TOTAL	Future Phases
Gas Tax	1,094,200	61,056	1,033,144	0	0	1,094,200	0
TOTAL FUNDING	**1,094,200**					**1,094,200**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

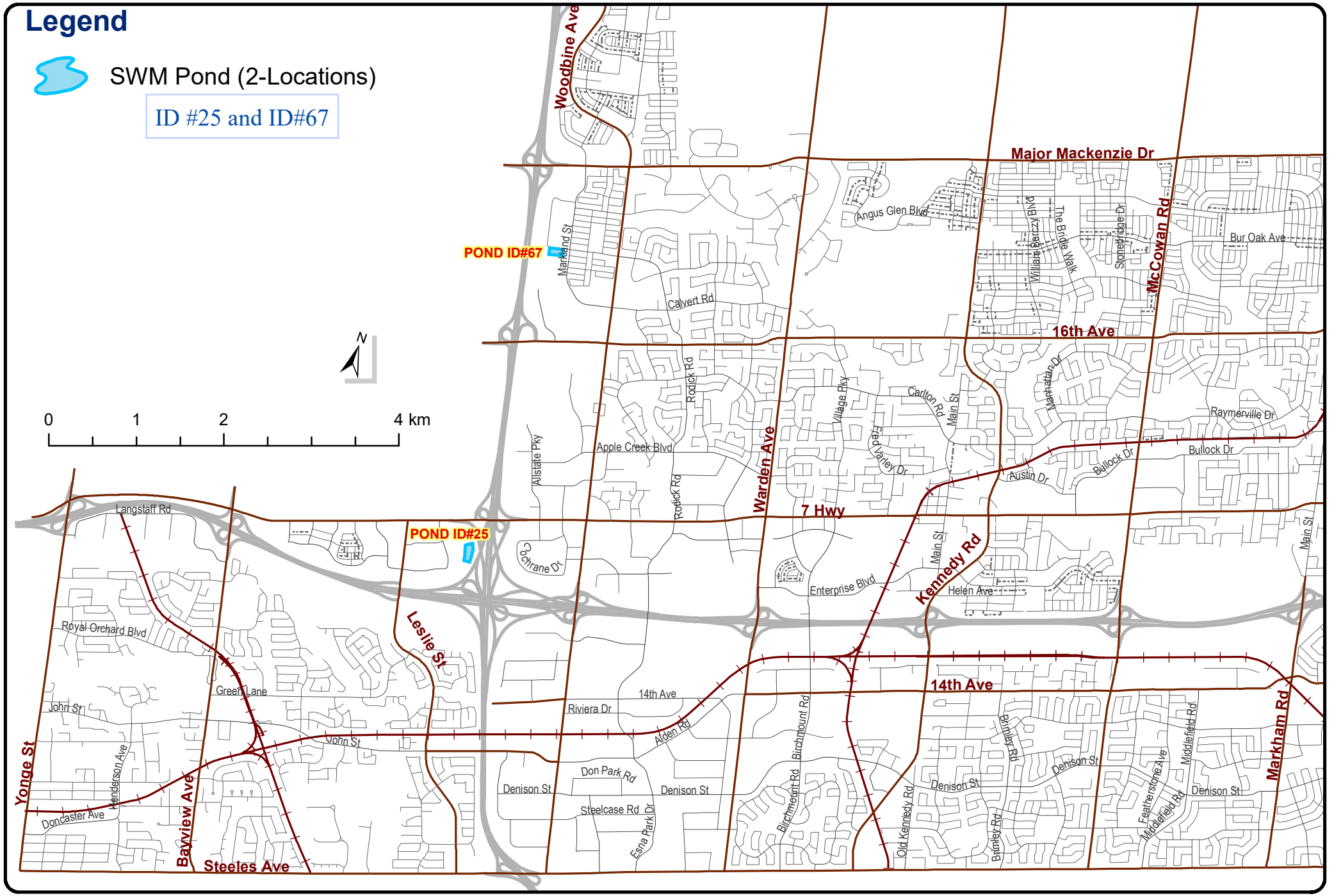
Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Project	**SWM Pond Cleaning – Ponds ID #25 & # ID #67**
2020 Capital Request	$1,094,200
Funding Source	Life Cycle Reserve
Description of Program	Sediment cleaning, maintenance and repairs to two Stormwater Management (SWM) Ponds: • Pond #25: Commerce Valley East Pond (Ward 8) with current sediment level: 71% • Pond #67: Hillmount Park Pond (Ward 2) with current sediment level of 85%. Total inventory: 56 wet ponds
Project Rationale	SWM Ponds require maintenance to function efficiently. Sediment levels need to be monitored and when the percentage of accumulated sediment is above regulatory limits (varies depending on the pond design), ponds need to be cleaned to ensure that the approved quality control function of the pond is maintained.
Legislative Requirement	Yes - Section 53, Ontario Water Resources Act
History	Based on the pond sediment level survey inspections, ponds are identified for cleaning. • Operations is responsible for minor above ground maintenance on SWM ponds • ES is responsible for all other aspects including inspection, sediment cleaning, rehabilitation and flood control strategies
Future Phases	Based on the outcome of the bi-annual SWM Pond survey inspection results
Total Project Cost (incl. all phases)	Varies
Related Projects	• SWM Pond - Condition Inspection
Related Maps	• Location Map
Alignment to the Strategic Plan	Safe and Sustainable Community • Sediment cleaning maintains the downstream water quality, preserves the fish habitat and contributes to a sustainable, healthy eco system

Location Map
SWM Pond Cleaning - Ponds ID#25 & ID#67

ES - Infrastructure (2020)



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Date: 2019-05-24

2020 PROJECT FUNDING REQUEST FORM

Number: 20250

Project Cost: $27,600

Project Name: **Water Quality Improvements and Geese Control**

Commission: Community & Fire Services

Department: ES - Stormwater

Project Mgr: Kate Rothwell

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 1 Pre Approval: ☐

Category: Minor

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Continue with the Swan Lake (Ward 5) and Toogood Pond (Ward 3) geese control program, and implement water quality improvements at other stormwater facilities. Program is intended to manage recurring water quality complaints at various stormwater management ponds.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	27,100	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	27,100	0
HST Impact:	477	0
Total Project Cost:	**27,600**	**0**

NOTES

This is an annual program. The project includes geese control and water quality improvements at Swan Lake, Toogood Pond, and at other SWM facilities as necessary.
Average 3 year expenditure (2016-2018): $26,600
Requirement Validation: To protect the water quality.
Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	27,600	0	0	0	0	0	0
TOTAL FUNDING	**27,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	27,600
Amount Incl HST	27,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

601

Number: 20251

Project Cost: $27,600

Project Name: **Water Quality Monitoring**

Commission: Community & Fire Services

Department: ES - Stormwater

Project Mgr: Kate Rothwell

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Continue with the water quality sampling and analysis at Swan Lake and other sites driven based on the stormwater management facility inspection program. The limnologist report (2014) on Swan Lake concluded while nutrient concentrations were reduced by Phoslock application, the lake still remains eutrophic & at risk of toxic algae growth. Monitoring was recommended to guide future management actions & assess benefits of geese control.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	27,100	0
Sub Total:	27,100	0
HST Impact:	477	0
Total Project Cost:	**27,600**	**0**

NOTES

Req. Validation: In Feb 2013, the Council approved application of phoslock in Swan Lake. The lake needs to be monitored for the effectiveness of geese control program.
Unit cost is consistent with recent award plus inflation.
Amount requested is consistent with 2019 Life Cycle Reserve Study Update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	27,600	0	0	0	0	0	0
TOTAL FUNDING	**27,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	27,600
Amount Incl HST	27,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20253

Project Cost: $100,000

Project Name: **Incremental Growth Related Waste Management Vehicles**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☐

Department: ES - Waste

Category: Annual

Project Mgr: Claudia Marsales

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Development Charge (DC) funding for additional growth-related waste management vehicles purchased by contractor. If waste management was done in-house, these vehicles would need to be purchased by the City, so this request is to obtain DC funding to offset a portion of the capital cost included in the waste management contract paid through Operating accounts.

BUILDING MARKHAM'S FUTURE TOGETHER:

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	100,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	100,000	0
HST Impact:	0	0
Total Project Cost:	**100,000**	**0**

NOTES

Amount requested is per 2017 Development Charges Background Study.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
DCA	100,000	0	0	0	0	0	0
TOTAL FUNDING	**100,000**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20254

Project Cost: $193,400

Project Name: **Calibration of Water Quality Model**

Commission: Community & Fire Services

Department: ES - Waterworks

Project Mgr: Shu Min Gao

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 5 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to update the water quality model every 5 years. The model is a tool that identifies water flush optimization and water turnover while assuring high water quality is maintained at all times. The model also identifies strategies to remove and flush potential contaminants in the system. City's water source suppliers, York Region & City of Toronto, made operational changes that affects water flow and associated chlorine disinfection concentrations that are delivered into Markham's water distribution system which requires calibration of the City's water quality model to reflect the changes.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	190,055	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	190,055	0
HST Impact:	3,345	0
Total Project Cost:	**193,400**	**0**

NOTES

Requirement validation: model to be updated once every 5 years. Last update was completed in 2015.

SOURCE(S) OF FUNDING ($)	Components					
Funding Type	Budget				TOTAL	Future Phases
		0	0	0	0	0	0
Waterworks	193,400	0	0	0	0	0	0
TOTAL FUNDING	**193,400**				**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20255

Project Cost: $378,900

Project Name: **Cathodic Protection of Cast Iron Watermains**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: ES - Waterworks

Category: Minor

Project Mgr: Vikas Thakur

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program to install corrosion protection material (anodes) to cast iron and ductile iron watermains to reduce/ prevent corrosion. Renewal of corrosion protection is necessary to replace the depleted anodes (17-19 years old) and test stations.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	323,200	0
Internal Charges:	50,000	0
External Consulting:	0	0
Sub Total:	373,200	0
HST Impact:	5,688	0
Total Project Cost:	**378,900**	**0**

NOTES

This is an annual program (Phase 2 of 17). Program commenced in 1993 with an avg. of 120 watermain breaks/year which has reduced to an avg. of 32 breaks/ year in 2018. Second cycle of ductile and cast iron watermains corrosion protection commenced in 2014. This request is to install anodes for approx. 11 km length of CI watermain (Refer to attached map). City inspector is required for 6 month period each year ($50K). Unit cost is consistent with recent award plus inflation.

SOURCE(S) OF FUNDING ($)		Components				
Funding Type	Budget	Construction	Internal staff		TOTAL	Future Phases
Waterworks	378,900	328,900	50,000	0	0	378,900	0
TOTAL FUNDING	**378,900**					**378,900**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

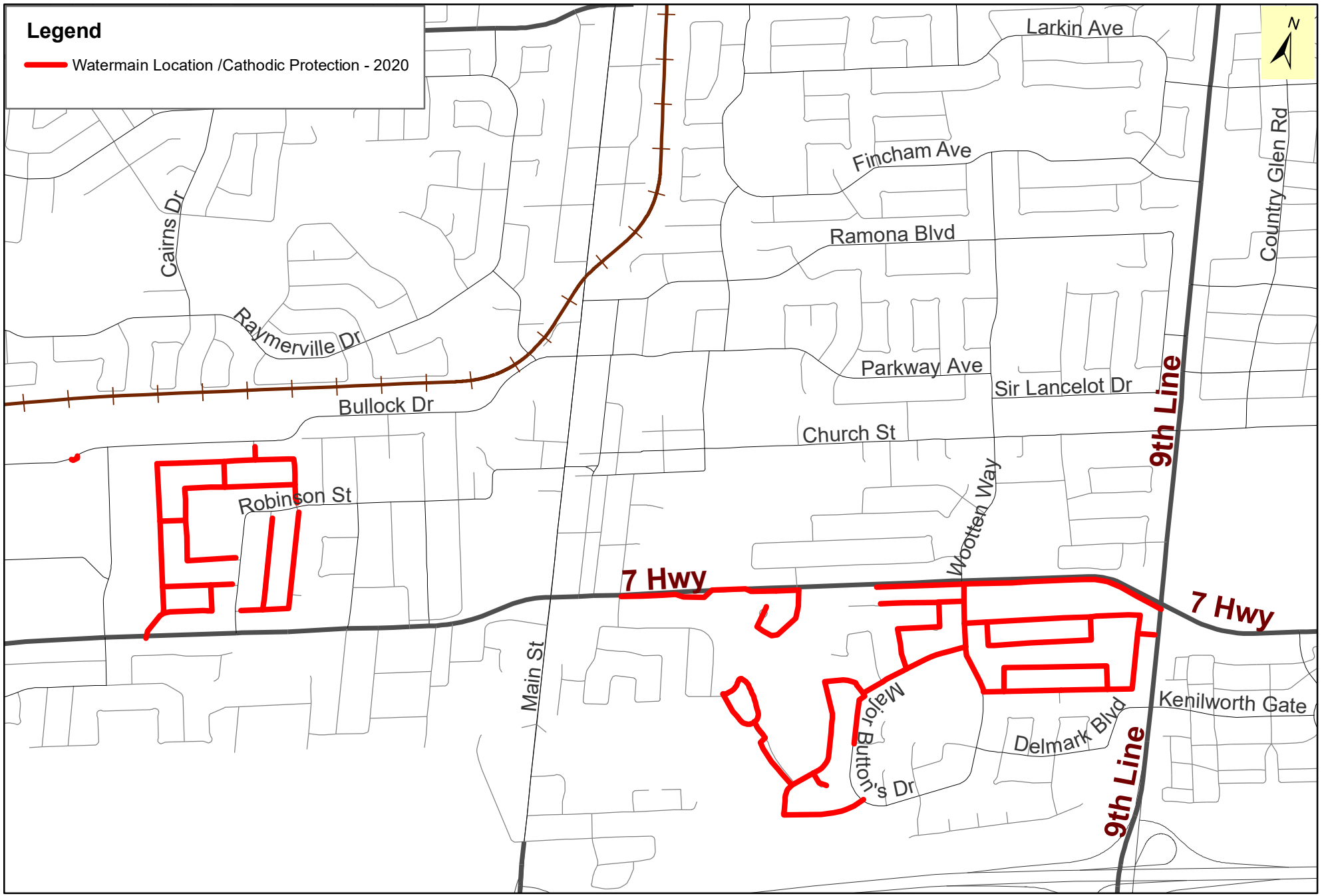
Amount Incl HST

Year in the study: 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Location Map
Cathodic Protection of Cast Iron Watermains

ES - Infrastructure (2020)



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Date: 2019-05-24

2020 PROJECT FUNDING REQUEST FORM

Number: 20257

Project Cost: $5,729,700

Project Name: **CI Watermain Replacement - Construction & CA**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 90 Pre Approval: ☐

Department: ES - Waterworks

Category: Major

Project Mgr: Jawaid Khan

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Construction and Contract Administration for replacement of 4.1 km of cast iron (CI) watermain that have reached the service life in the Laureleaf area (refer to attached map).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	5,353,164	68,803,725
Internal Charges:	0	0
External Consulting:	277,436	0
Sub Total:	5,630,600	68,803,725
HST Impact:	99,099	1,210,946
Total Project Cost:	**5,729,700**	**70,014,700**

NOTES

This is an annual program (Phase 2 of 15; ending in 2032).
Total CI Watermain: 54.1km
As part of the cast iron watermain replacement program, aged cast iron watermain will be systematically replaced with the PVC or will be rehabilitated with CIPP liner.
Cost is consistent with recent award prices plus inflation.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: CA	Components: Construction			TOTAL	Future Phases
Waterworks	5,729,700	282,319	5,447,381	0	0	5,729,700	70,014,700
TOTAL FUNDING	**5,729,700**					**5,729,700**	**70,014,700**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study: 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

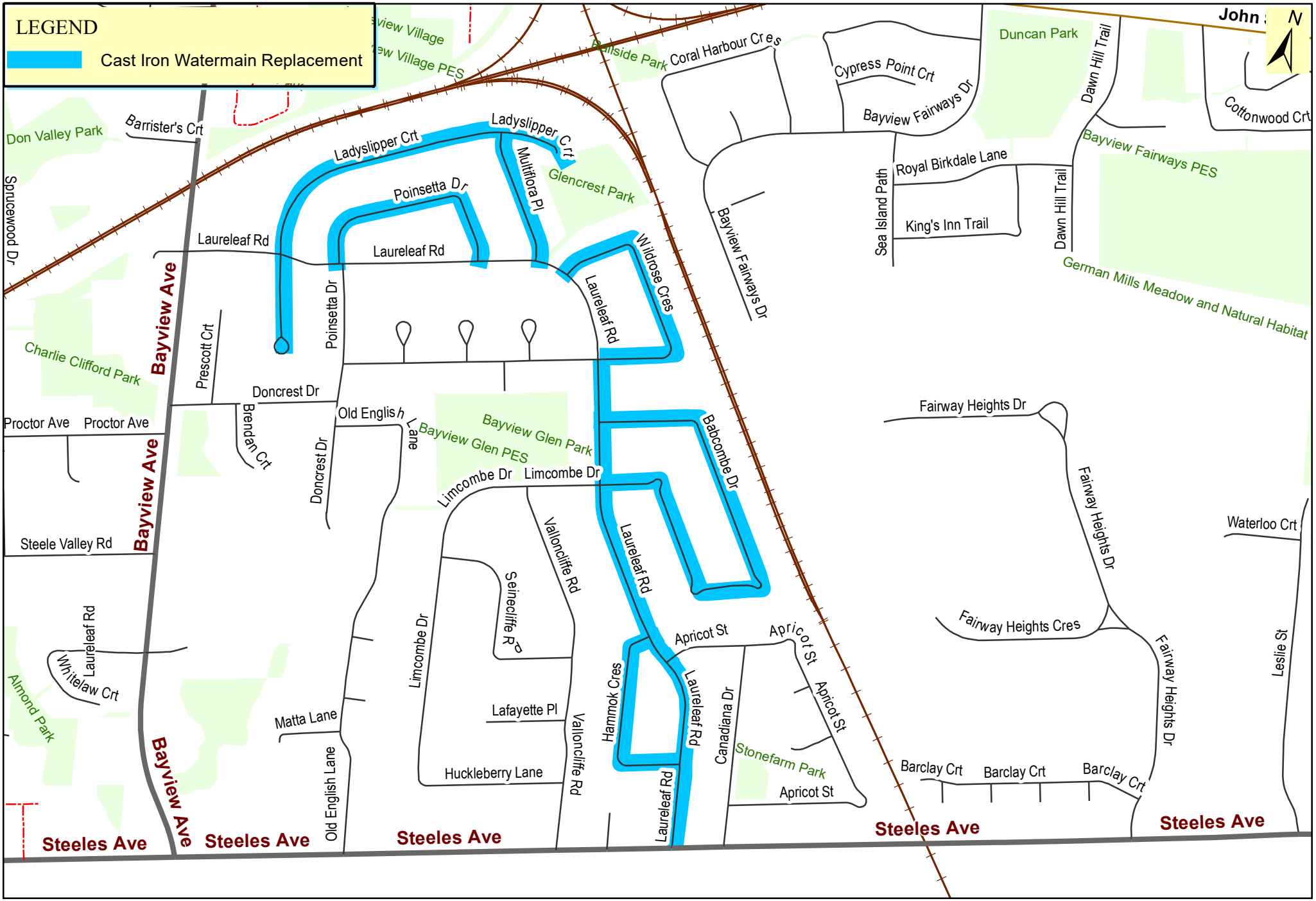
<table>
<tr><td>Project</td><td>Cast Iron Watemain Replacement – Construction & Contract Administration</td></tr>
<tr><td>2020 Capital Request</td><td>$5,729,700</td></tr>
<tr><td>Funding Source</td><td>Waterworks Reserves</td></tr>
<tr><td>Description of Program</td><td>Construction and Contract Administration for replacement of 4.1 km of cast iron (CI) watermain that have reached the service life in the Laureleaf area. This is an annual program (Phase 2 of 15; ending in 2032).
Total CI Watermain: 54.1km (as of 2019)</td></tr>
<tr><td>Project Rationale</td><td>As part of the cast iron watermain replacement program, aged cast iron watermain will be systematically replaced with the PVC or will be rehabilitated with CIPP liner.</td></tr>
<tr><td>Legislative Requirement</td><td>Yes – Drinking Water Quality Management System (DWQMS)</td></tr>
<tr><td>History</td><td>Total CI Watermain Inventory 54.1 km
CI watermain replaced in 2019 (Ph 1) 6.8 km</td></tr>
<tr><td>Future Phases</td><td>
<table>
<tr><th>Phase #</th><th>Replacement Year</th><th>Budget Cost</th><th>Comments</th></tr>
<tr><td>Phase 1</td><td>2019</td><td>$ 13,624,200</td><td>6.8 km of Watermain replacement</td></tr>
<tr><td rowspan="2">Phase 2</td><td rowspan="2">2020</td><td>$ 5,897,500</td><td>1.8 km of watermain replacement in West Thornhill Area</td></tr>
<tr><td>$ 5,729,700</td><td>4.1 km of watermain replacement in Laureleaf Road area</td></tr>
<tr><td>Phase 3a</td><td>2020</td><td>$ 439,600</td><td>Watermain Relining - Design</td></tr>
<tr><td>Phase 3b to Phase 15</td><td>2021 - 2032</td><td>$ 70,014,700</td><td>41.4 km remaining</td></tr>
<tr><td colspan="2">Budget Cost of Future Phases (2021-2032)</td><td>$ 70,014,700</td><td></td></tr>
</table>
</td></tr>
<tr><td>Total Project Cost (incl. all phases)</td><td>$95.6M</td></tr>
<tr><td>Related Projects</td><td>• CI Watermain Replacement – West Thornhill Flood Control Implementation Areas</td></tr>
<tr><td>Related Maps</td><td>• Location Map</td></tr>
<tr><td>Alignment to the Strategic Plan</td><td>Safe and Sustainable Community
• Effective watermain replacement / rehabilitation program reduces service interruptions, improves supply capacity and reliability, and maintains water quality</td></tr>
</table>

MARKHAM

Location Map
CI Watermain Replacement - Construction & CA

A12 - Laureleaf Area

ES - Infrastructure (2020)



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Date: 2019-05-31

2020 PROJECT FUNDING REQUEST FORM

Number: 20259

Project Cost: $614,100

Project Name: **Curb Box Inspection and Replacement Program**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: ES - Waterworks

Category: Minor

Project Mgr: Vikas Thakur

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☑ 8 ☑

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program to conduct inspection of curb boxes and repair /replace defective curb boxes which are normally located at the property line. Curb box/ stop valve is the main control appurtenance for the City to turn on/off water supply to the private property. Over time, curb boxes/ stop valves deteriorate and become inoperable. Proactive inspection and repairs are required to ensure continuous water supply and reduce service interruption.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	554,300	0
Internal Charges:	50,000	0
External Consulting:	0	0
Sub Total:	604,300	0
HST Impact:	9,756	0
Total Project Cost:	**614,100**	**0**

NOTES

This is an annual program.
Total inventory: 81,784 curb boxes. This request is to inspect approx. 3,309 curb boxes and replacement of approx. 25% curb boxes and damaged sidewalk bays as required (Refer to attached map). City inspector is required for 6 month period ($50k).
There is no substantial backlog and curb boxes are in a state of good repair. Unit cost is consistent with recent award plus inflation.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Waterworks	614,100	0	0	0	0	0	0
TOTAL FUNDING	**614,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

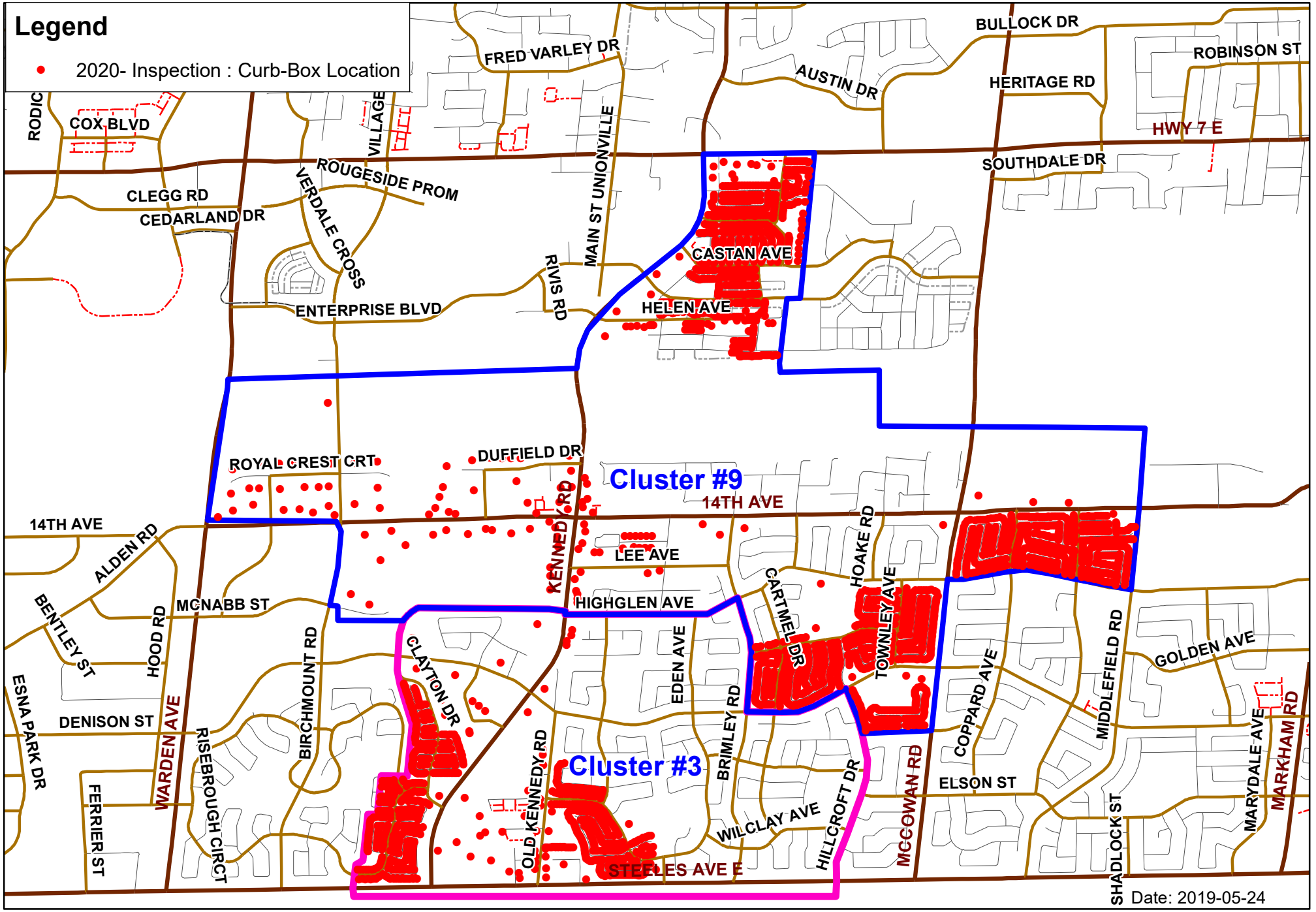
Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Project	**Curb Box Inspection and Replacement Program**
2020 Capital Request	$614,100
Funding Source	Waterworks Reserves
Description of Program	Program to conduct inspection of curb boxes and repair /replace defective curb boxes which are normally located at the property line. This is an annual program. Total inventory: 81,784 curb boxes. This request is to inspect approx. 3,309 curb boxes and replacement of approx. 25% curb boxes and damaged sidewalk bays as required. City inspector is required for 6 month period ($50k).
Project Rationale	Curb box/ stop valve is the main control appurtenance for the City to turn on/off water supply to the private property. Over time, curb boxes/ stop valves deteriorate and become inoperable. Proactive inspection and repairs are required to ensure continuous water supply and reduce service interruption.
Legislative Requirement	Yes – Drinking Water Quality Management System (DWQMS)
History	Historically 2,000 – 3,000 curb boxes are inspected annually
Future Phases	This is an annual program. approx. 3,300 – 4,300 curb boxes are inspected and 25% of curb boxes are replaced
Total Project Cost (incl. all phases)	Varies
Related Projects	None
Related Maps	• Location Map
Alignment to the Strategic Plan	Safe and Sustainable Community • Timely rehabilitation of curb boxes reduces service interruptions, maintains water quality and supports City's vision for a sustainable community

Location Map
Curb Box Inspection and Replacement Program

ES - Infrastructure (2020)



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2020 PROJECT FUNDING REQUEST FORM

Number: 20260

Project Cost: $101,800

Project Name: **I/I Investigation - Carlton Pump Station Catchment Area**

Commission: Community & Fire Services

Department: ES - Waterworks

Project Mgr: Lijing Xu

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to undertake an Inflow and Infiltration (I/I) Investigation for the Carlton Pump Station tributary area. The results of this investigation will allow a comparison against other alternative mitigation solutions such as inline storage, capacity upgrades and/or wet well upsizing, to determine the most cost-effective approach. Dye testing for approx. 200 homes is included in this project.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	100,000	0
Sub Total:	100,000	0
HST Impact:	1,760	0
Total Project Cost:	**101,800**	**0**

NOTES

In 2016, two pumps were replaced as they were at the end of their service life. SCADA and flow monitoring data were not available at the time of pump replacement. Later, SCADA data indicated that both pumps were operating more frequently during storm events and flow monitoring data indicated that the pump station has insufficient capacity during a 5 year storm. A consultant was retained to carry out capacity analysis and the recommendation is to carry out a comprehensive I/I investigation within the catchment area prior to any infrastructure upgrades to the wet well.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Waterworks	101,800	0	0	0	0	0	0
TOTAL FUNDING	**101,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

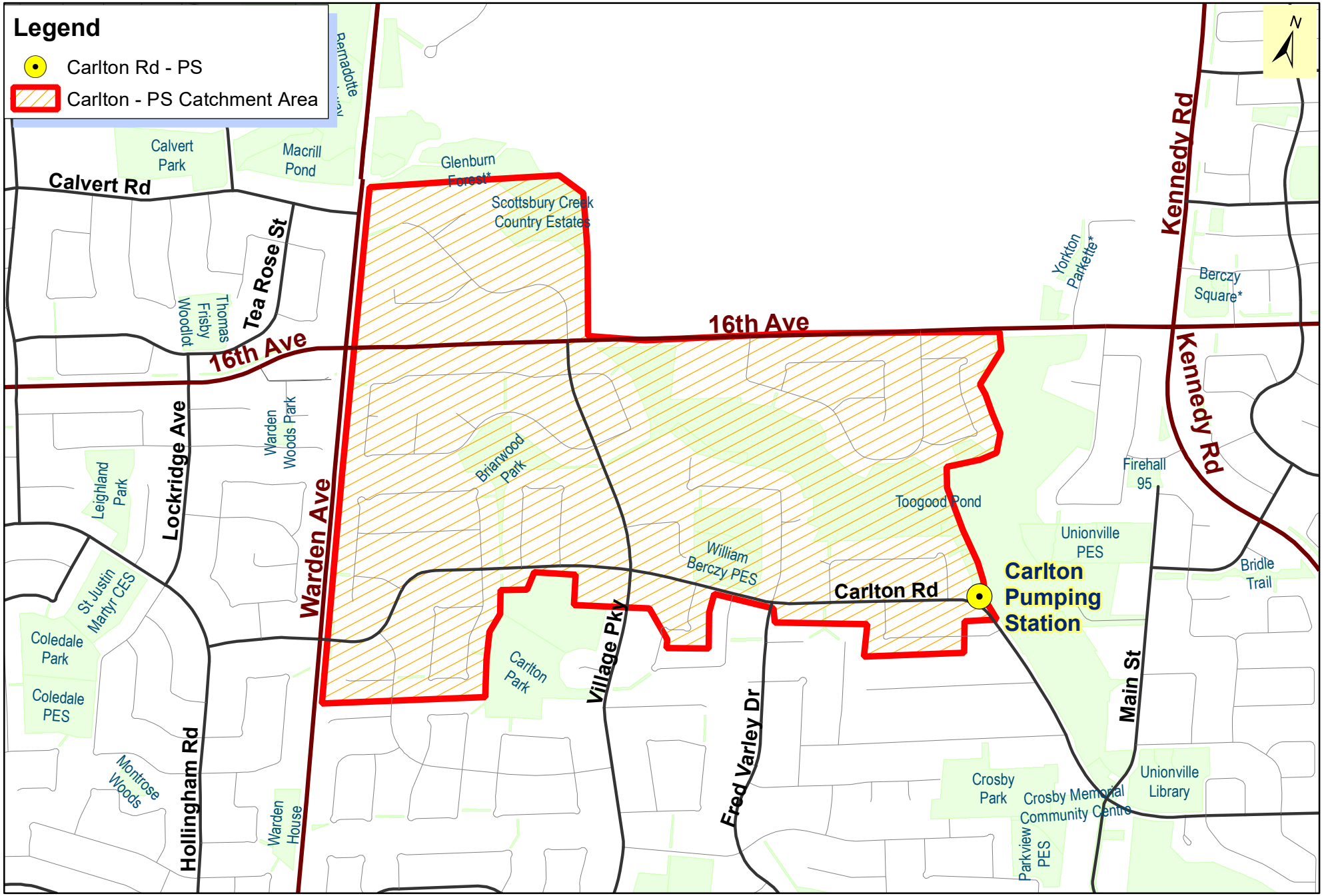
Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Location Map
I / I Investigation – Carlton PS Catchment Area

ES - Infrastructure (2020)



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Date: 2019-07-04

2020 PROJECT FUNDING REQUEST FORM

Number: 20261

Project Cost: $910,600

Project Name: **Sanitary Sewers - Rehabilitation**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 50 Pre Approval: ☐

Department: ES - Waterworks

Category: Major

Project Mgr: David Huynh

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Program to rehabilitate the main sewer, service laterals using structural liner including repairs to manholes.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	835,900	0
Internal Charges:	60,000	0
External Consulting:	0	0
Sub Total:	895,900	0
HST Impact:	14,712	0
Total Project Cost:	**910,600**	**0**

NOTES

This is an annual program.
Program is to rehabilitate the main sewer, service laterals using structural liner and repairs to manholes identified through the inspection programs. City inspector required for a 8 month period ($60K).
Sanitary sewers are in a state of good repair.

SOURCE(S) OF FUNDING ($)		Components				Future
Funding Type	Budget	Internal staff	Construction		TOTAL	Phases
Waterworks	910,600	60,000	850,600	0	910,600	0
TOTAL FUNDING	**910,600**				**910,600**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Project	**Sanitary Sewers – Rehabilitation**
2020 Capital Request	$910,600
Funding Source	Waterworks Reserves
Description of Program	Program to rehabilitate the main sewer, service laterals using structural liner including repairs to manholes identified through CCTV inspection.
Project Rationale	Timely rehabilitation of sewer pipes will extend the service life of the sanitary sewer system and reduce maintenance cost / liabilities
Legislative Requirement	None
History	Annually $0.9M - $1M budget spent (based on past 3 years actuals)
Future Phases	Varies – Based on the outcome of the CCTV inspection results.
Total Project Cost (incl. all phases)	25 Years Life Cycle Cost $44.1M
Related Projects	• Sanitary Sewer and Laterals CCTV inspection
Related Maps	-
Alignment to the Strategic Plan	Safe and Sustainable Community • Effective maintenance of sanitary sewer system reduces service interruptions, sewer backups into homes and supports City's vision for a sustainable community

2020 PROJECT FUNDING REQUEST FORM

Number: 20262

Project Cost: $52,900

Project Name: **Suspended Watermains - Condition Inspection**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☐

Department: ES - Waterworks

Category: Minor

Project Mgr: Jawaid Khan

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Hire a consultant to inspect City-wide suspended watermains along the bridges to identify sections for rehabilitation works.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	52,000	0
Sub Total:	52,000	0
HST Impact:	915	0
Total Project Cost:	**52,900**	**0**

NOTES

This is a new program commencing from 2020. The program is to carry out enhanced condition inspection of all the suspended watermains (475m) at 13 bridge locations.
Program Frequency: Every 5 years
Future rehabilitation works will be determined based on results of condition inspection.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Waterworks	52,900	0	0	0	0	0	0
TOTAL FUNDING	**52,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

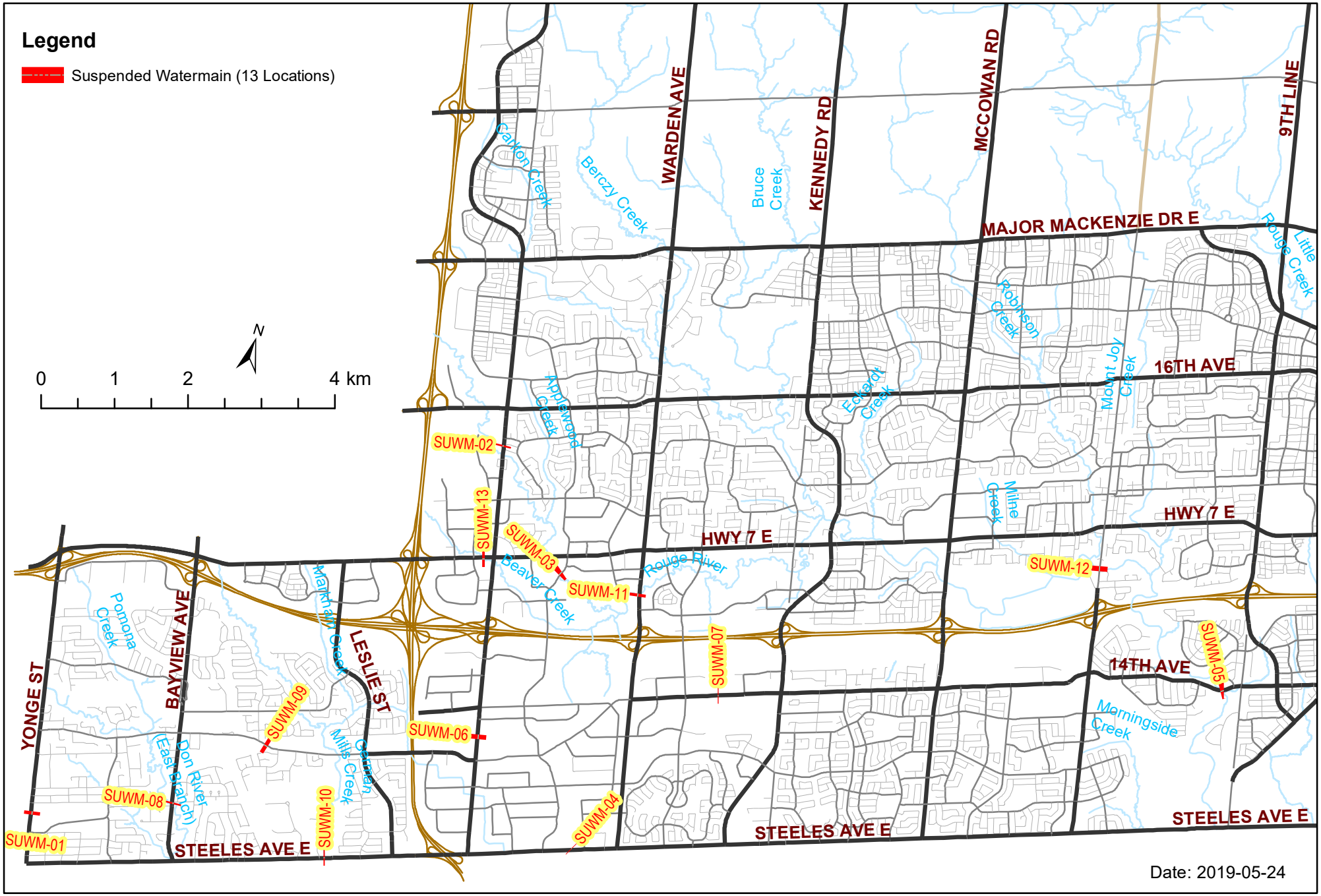
Amount Incl HST

Year in the study: 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Location Map:
Suspended Watermains - Condition Inspection

ES - Infrastructure (2020)



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2020 PROJECT FUNDING REQUEST FORM

Number: 20263

Project Cost: $213,700

Project Name: **Update of Wastewater System Hydraulic Model**

Commission: Community & Fire Services

Department: ES - Waterworks

Project Mgr: Lijing Xu

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Hire a Consultant to update and re-calibrate the Wastewater System Hydraulic Model. Periodically Wastewater System Hydraulic Model is updated to reflect the up-to-date system network and system performance with longer flow monitoring data. This will produce a higher accuracy model, which is needed to assess the impact of both new development and the current level of flood risk in the collection system during both dry weather flow and extreme rain event conditions.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	210,000	0
Sub Total:	210,000	0
HST Impact:	3,696	0
Total Project Cost:	**213,700**	**0**

NOTES

Program to update system hydraulic model every 5 years including system network update and model calibration/validation with newly collected flow monitoring data. Last model update and calibration was completed in 2014 / 2015. Over the past 5 years, some new developments have occurred in certain areas and the Region/City has continued with sanitary flow monitoring and rain data collection in Markham.
Unit cost is consistent with recent award plus inflation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Waterworks	213,700	213,700	0	0	0	213,700	0
TOTAL FUNDING	**213,700**					**213,700**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20264

Project Cost: $152,600

Project Name: **Wastewater Flow Monitoring - Annual Program**

Commission: Community & Fire Services

Department: ES - Waterworks

Project Mgr: Lijing Xu

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☑ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 0 Pre Approval: ☐

Category: Major

Cost Validation: Recent awards

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This program is to hire a Consultant to record the sanitary system flows to help quantify areas that require further investigation and remedial works to reduce the wastewater system flood risk during large storm events from inflow and infiltration (I/I).
Approx. 15 locations will be monitored in 2020 (refer to attached map) to establish the level of extraneous flow into the wastewater collection system from rainfall events.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	150,000	0
Sub Total:	150,000	0
HST Impact:	2,640	0
Total Project Cost:	**152,600**	**0**

NOTES

This is an annual program. Monitoring is for 12 months, followed by analysis and report generation. The results will be used to determine the degree of improvement needed to minimize wastewater system flooding. Project cost is based on current contract (expires in 2023).

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Waterworks	152,600	0	0	0	0	0	0
TOTAL FUNDING	**152,600**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

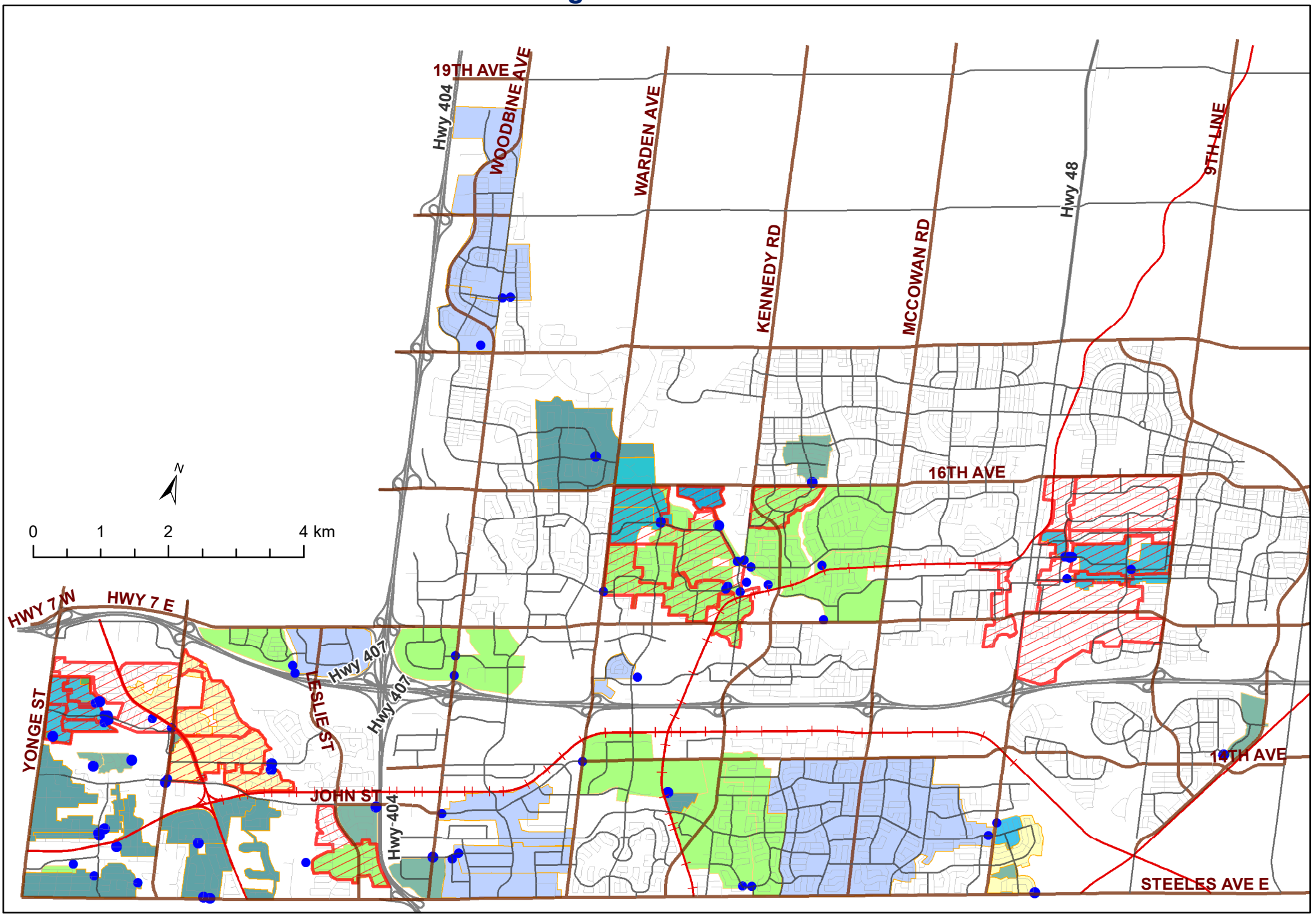
Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Location Map
Wastewater Flow Monitoring



2020 PROJECT FUNDING REQUEST FORM

Number: 20266

Project Cost: $996,700

Project Name: **Water Meters - Replacement Program**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 20 Pre Approval: ☐

Department: ES - Waterworks

Category: Minor

Project Mgr: David Huynh

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of Residential, Multi Residential and Industrial/ Commercial/ Institutional (ICI) water meters that have reached the service life (20 years).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	979,500	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	979,500	0
HST Impact:	17,239	0
Total Project Cost:	**996,700**	**0**

NOTES

This is an annual program. Total inventory: 82,529. This request is to replace approx. 3,930 water meters (3,800 residential, 25 multi residential and 105 ICI) and perform random testing of approx. 5% of new meters for accuracy per AWWA C700 (Recommendation #1 for Improvement on Metering Practices, 2015 by Region of York). There is no substantial backlog and water meters are in a state of good repair. Unit cost is consistent with recent award plus inflation.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Waterworks	996,700	0	0	0	0	0	0
TOTAL FUNDING	**996,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

<table>
<tr><td>Project</td><td>Water Meters Replacement Program</td></tr>
<tr><td>2020 Capital Request</td><td>$996,700</td></tr>
<tr><td>Funding Source</td><td>Waterworks Reserves</td></tr>
<tr><td>Description of Program</td><td>Replacement of Residential, Multi Residential and Industrial/ Commercial/ Institutional (ICI) water meters that have reached the service life (20 years).
This is an annual program.
This request is to replace approx. 3,930 water meters and perform random testing of approx. 5% of new meters for accuracy per AWWA C700 (Recommendation #1 for Improvement on Metering Practices, 2015 by Region of York).
<table>
<tr><th>Type of Water Meter</th><th>Total Inventory (as of Jan 2019)</th><th>2020 Program</th></tr>
<tr><td>Residential</td><td>79,924</td><td>3,800 (4.8%)</td></tr>
<tr><td>Multi Residential</td><td>453</td><td>25 (5.5%)</td></tr>
<tr><td>Industrial/ Commercial/ Institutional (ICI)</td><td>2,152</td><td>105 (4.9%)</td></tr>
<tr><td>Total</td><td>82,529</td><td>3,930 (15.2%)</td></tr>
</table></td></tr>
<tr><td>Project Rationale</td><td>To replace the water meters that have reached their service life of 20 years. Inaccurate meters, if not replaced may result in non-revenue water loss and will lead to customer complaints for high water consumption.</td></tr>
<tr><td>Legislative Requirement</td><td>Yes – Drinking Water Quality Management System (DWQMS)</td></tr>
<tr><td>History</td><td>Average 15% of water meters are replaced annually</td></tr>
<tr><td>Future Phases</td><td>Approx. 4000 water meters will be inspected annually</td></tr>
<tr><td>Total Project Cost (incl. all phases)</td><td>Varies</td></tr>
<tr><td>Related Projects</td><td>None</td></tr>
<tr><td>Related Maps</td><td>-</td></tr>
<tr><td>Alignment to the Strategic Plan</td><td>Safe and Sustainable Community
• Timely replacement of water meters will reduce non- revenue water loss and customer complaints due to high water consumption</td></tr>
</table>

2020 PROJECT FUNDING REQUEST FORM

Number: 20267

Project Cost: $73,200

Project Name: **Waterworks Equipment**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☐

Department: ES - Waterworks

Category: Minor

Project Mgr: Mario Puopolo

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Multiple(specify)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This request is to purchase various new equipment for day to day activities in the Waterworks Operation & Maintenance section. This equipment will assist with hydrant repairs, locating infrastructure and getting more detailed analysis of water sampling.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	71,900	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	71,900	0
HST Impact:	1,265	0
Total Project Cost:	**73,200**	**0**

NOTES

This request is to purchase various new equipment:
(A) S100 Portable Parallel analyzer ($4,900)
(B) 2 Underground Radio detection Devices ($12K) (C) Cut and Groove Machine ($25K)
(D) Small Pit Shoring Kit ($18K)
(E) Hydrant Saver ($12K)
Refer to the attachment for further details on each equipment. E3: savings of $14k in 2020 Operating budget (annualized savings $28k). All equipment are new purchases.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	Analyzer & Radio Devices	Cut & Groove Machine	Pit Shoring Kit	Hydrant Saver	TOTAL	Future Phases
Waterworks	73,200	17,200	25,450	18,350	12,200	73,200	0
TOTAL FUNDING	**73,200**					**73,200**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	-$14,000	$0	-$14,000

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20268

Project Cost: $2,685,300

Project Name: **Corporate Capital Contingency**

New Asset/Expansion

Commission: Corporate Wide

Department: Corporate Wide

Project Mgr:

Useful Life: 0 Pre Approval: ☑

Category:

Cost Validation:

Requirement Validation:

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Total amount of contingency for 2020 applicable capital projects.

BUILDING MARKHAM'S FUTURE TOGETHER:

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	2,685,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	2,685,300	0
HST Impact:	0	0
Total Project Cost:	**2,685,300**	**0**

NOTES

Other Internal funding breakdown:
$51,600 Gas Tax, $45,800 Non-DC Growth, $37,415 Section 37, $19,300 Waterworks reserve, $28,480 Building reserve, $7,120 Development fee reserve
Other External funding breakdown:
$127,570 Parks Cash-in-lieu, $45,900 funded from Pan Am building construction projects, $13,700 Region of York

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
	0	0	0	0	0	0	0
DCA	1,831,960	0	0	0	0	0	0
Non-DC Growth	21,630	0	0	0	0	0	0
Operating Funded Life Cycle	425,365	0	0	0	0	0	0
Other External	187,170	0	0	0	0	0	0
Other Internal	189,715	0	0	0	0	0	0
Tax	29,460	0	0	0	0	0	0
TOTAL FUNDING	**2,685,300**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	
Amount Incl HST	
Year in the study	

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20007

Project Cost: $223,900

Project Name: **Theatre-Courtyard Replacement (Upper & Lower)**

Repair/Replace

Commission: Development Services

Useful Life: 25 Pre Approval: ☑

Department: Theatre

Project Mgr: Andrew Rosenfarb

Category: Major

Ward(s): CW ☑ 1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐ 8☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Remove interlock brick from the theatre's main entrance and 2 courtyards located in between the Theatre and Unionville High School and replace with concrete. Existing interlock was installed during theatre construction in 1985.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	200,000	0
Internal Charges:	0	0
External Consulting:	20,000	0
Sub Total:	220,000	0
HST Impact:	3,872	0
Total Project Cost:	**223,900**	**0**

NOTES

This project aims to make the courtyard areas on City owned property more usable & attractive for events and most importantly to fix issues such as unlevelled ground, water drainage issues, missing stones and open ground where trees have been removed. Work would take place in the summer months to have minimal impact on programs. Amount requested is consistent with the 2019 Life Cycle reserve study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	223,900	0	0	0	0	0	0
TOTAL FUNDING	**223,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,100,900

Amount Incl HST 223,900

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2019 life cycle includes HVAC Quantity Survey ($10k), Theatrical Lighting Fixture Replacement ($195k), Building Maint. ($42k), Dressing Room Refurbishment ($291k), Courtyard Replacement ($224k), Parking Lot Swing Gates ($15k), Stage Equipment & Maint. ($20k). Amount available in 2020 life cycle is $1,101k. Amount requested is $797k. Difference is primarily due to the deferral of the auditorium interior painting & LED house light conversion ($251k) and other components based on assessment.

2020 PROJECT FUNDING REQUEST FORM

Number: 20008

Project Cost: $290,700

Project Name: **Theatre-Dressing Room Refurbishment**

Repair/Replace

Commission: Development Services

Useful Life: 10 Pre Approval: ☑

Department: Theatre

Category: Major

Project Mgr: Andrew Rosenfarb

Cost Validation: External peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Redesign & refurbishment of 6 dressing rooms including replacement of flooring, countertops, shower stalls, ceramic tiles, plumbing fixtures, toilets, partitions, mirrors, chairs, costume racks, painting and replacement of incandescent lighting with LED.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	245,700	0
Internal Charges:	0	0
External Consulting:	40,000	0
Sub Total:	285,700	0
HST Impact:	5,028	0
Total Project Cost:	**290,700**	**0**

NOTES

Last refurbished over 12 years ago, the venue's dressing rooms are showing their age and several components have visible damage. Dressing rooms are used by both our professional artists from around the world and members of our community. For some, these rooms are one of the only few impressions they get of the Theatre and City of Markham. The theatre is requesting to refurbish these spaces to better serve our clients and community. Amount consistent with the 2019 life cycle reserve study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	290,700	0	0	0	0	0	0
TOTAL FUNDING	**290,700**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,100,900
Amount Incl HST	290,700
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2019 life cycle includes HVAC Quantity Survey ($10k), Theatrical Lighting Fixture Replacement ($195k), Building Maint. ($42k), Dressing Room Refurbishment ($291k), Courtyard Replacement ($224k), Parking Lot Swing Gates ($15k), Stage Equipment & Maint. ($20k). Amount available in 2020 life cycle is $1,101k. Amount requested is $797k. Difference is primarily due to the deferral of the auditorium interior painting & LED house light conversion ($251k) and other components based on assessment.

2020 PROJECT FUNDING REQUEST FORM

Number: 20009

Project Cost: $10,200

Project Name: **Theatre-HVAC Quantity Survey**

Commission: Development Services

Department: Theatre

Project Mgr: Jason Vasilaki & Andrew Rosenfarb

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Studies/Pilot Programs

Useful Life: 30 Pre Approval: ☑

Category: Minor

Cost Validation: Third party estimate

Requirement Validation: Documentation of life cycle years

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Quantity surveyor consultation for the replacement of the Theatre's HVAC system scheduled for 2021.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	1,500,000
Internal Charges:	0	0
External Consulting:	10,000	0
Sub Total:	10,000	1,500,000
HST Impact:	176	26,400
Total Project Cost:	**10,200**	**1,526,400**

NOTES

Recommendation from sustainability & asset management department to engage a professional cost estimation consultant for the HVAC replacement project. The 2021 construction project (current estimate included as future phases) will be adjusted based on the consultant's recommendation.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	10,200	0	0	0	0	0	1,526,400
TOTAL FUNDING	**10,200**					**0**	**1,526,400**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,100,900

Amount Incl HST 10,200

Year in the study 2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2019 life cycle includes HVAC Quantity Survey ($10k), Theatrical Lighting Fixture Replacement ($195k), Building Maint. ($42k), Dressing Room Refurbishment ($291k), Courtyard Replacement ($224k), Parking Lot Swing Gates ($15k), Stage Equipment & Maint. ($20k). Amount available in 2020 life cycle is $1,101k. Amount requested is $797k. Difference is primarily due to the deferral of the auditorium interior painting & LED house light conversion ($251k) and other components based on assessment.

2020 PROJECT FUNDING REQUEST FORM

Number: 20053

Project Cost: $750,200

Project Name: **E-Ticketing and Payment System Platform Replacement**

Repair/Replace

Commission: Corporate Services

Useful Life: 10 Pre Approval: ☑

Department: ITS

Category: Major

Project Mgr: Michael Killingsworth

Cost Validation: Other(specify in Notes)

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

In 2015, the City implemented an Administrative Monetary Penalty System (AMPs) for by-law prosecutions. The current e-ticketing and payment system platform is used to produce penalty notices, notice letters, schedule screenings and hearings and to process AMPs fines that have gone into default to Ministry of Transportation license plate denial. The current e-ticketing, online and phone payment system (ParkSmart) is over 10 years old and at end of life. The City was recently notified by ParkSmart that it will no longer be supporting this platform as of July 2019. It is currently used only for parking violations, which generates approximately $3M annually in parking violation revenues for the City; however, to scale up to full implementation of AMPs, the City requires updating of the current system to accommodate prosecution of all regulatory by-laws. Municipalities have had provincial court time reduced in the past two years. Markham is down to 6 days/yr of court time. A new e-ticket platform will allow the City to issue all notices, collect fine revenue and will permit online screening which is a significant customer service improvement. A new system will also provide improved analytics and data collection to optimize current resources. Not replacing the current system will create the risk of a complete program shut-down. All electronic processes currently facilitated through the platform will have to revert back to manual methods, including the issuance of penalty notices. This method will require significant additional human resources to manually input and track approximately 4000 penalty notices per month and facilitate all of the required administrative tasks associated with the prosecution of offences.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	565,000	0
Internal Charges:	175,300	0
External Consulting:	0	0
Sub Total:	740,300	0
HST Impact:	9,944	0
Total Project Cost:	**750,200**	**0**

NOTES

The cost validation for this project is based on a business proposal and quote received from a potential vendor for initial start up and $75,000 annually thereafter for maintenance fees for software, hosting and consumables. $175,300 has been added for 1 contract resource for 1.5 years for project management.

SOURCE(S) OF FUNDING ($)		Components					Future
Funding Type	Budget					TOTAL	Phases
Operating Funded Life Cycle	750,200	0	0	0	0	0	
TOTAL FUNDING	**750,200**					**0**	

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$75,000	$0	$75,000

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	
Amount Incl HST	
Year in the study	

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20060

Project Cost: $183,200

Project Name: **Enterprise Scheduling Software Solution**

New Asset/Expansion

Commission: Corporate Services

Useful Life: 5 Pre Approval: ☑

Department: ITS

Category: Major

Project Mgr: Ned Sirry

Cost Validation: Third party estimate

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

A scheduling software solution would allow for a streamlined and efficient approach to maintaining both the daily assignment of duties and weekly, bi-weekly, monthly schedules for Citywide uses. It would ensure appropriate coverage and support the allocation of staffing resources across the City. This would be an enterprise solution with provisions to meet requirements for all BU's that require it and planned intergration into existing HRIS systems (ADP). This project supports the City's strategy under Stewardship of Money & Resources. This would increase customer satisfaction, operational excellence, and staff engagement.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	180,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	180,000	0
HST Impact:	3,168	0
Total Project Cost:	**183,200**	**0**

NOTES

Several BU's have made requests for a scheduling software solution for their individual area - this would result in multiple point solutions, make support difficult, and result in muliple integration points. An Enterprise solution consolidates the point solutions into a corporate standard ensuring consistency across the City of Markham, a single support point, and single integration point with HRIS systems. ADP consultancy is expected for integration needs. (160K software + 20K integration)

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	183,200	0	0	0	0	0	0
TOTAL FUNDING	**183,200**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$15,000	$0	$15,000

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20079

Project Cost: $490,600

Project Name: **Parking Lot Light Replacement**

Repair/Replace

Commission: Corporate Services

Useful Life: 25 Pre Approval: ☑

Department: Asset Management

Category: Major

Project Mgr: Khwaja Waker

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This work allows for replacement of the parking lot light poles including underground wiring and fixture at City owned properties. Poles for replacement are identified through another program (Parking Lot light Inspection) that occurs every 5 years to meet illumination standards for safety and liability. Poles and fixtures are audited once every 5 years to identify the poles/fixtures to be replaced through this program.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	472,100	0
Internal Charges:	10,200	0
External Consulting:	0	0
Sub Total:	482,300	0
HST Impact:	8,309	0
Total Project Cost:	**490,600**	**0**

NOTES

$480,400 Citywide parking lot light poles, fixtures and underground cable replacement, incl. Milliken Mills CC (1987)
$10,200 Internal Chargeback
Amount requested is consistent with 2019 Life Cycle Reserve Study.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Parking lot light replacement	Components: Internal Chargeback			TOTAL	Future Phases
Operating Funded Life Cycle	490,600	480,400	10,200	0	0	490,600	0
TOTAL FUNDING	**490,600**					**490,600**	**0**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study: 1,903,300

Amount Incl HST 490,600

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

SAM LC program for 2020 is $1.778M of $1.903M - Corp Security $701.7K, Parking Lot light $490.6K, Backflow Prevention $20.4K, Bldg. Condition Audit $144K, Bldg Envelope $56.1K, Accessibility $137.7K, Designated Substances $69.4K & PVC Salt Dome Demolition supplement $158K.

2020 PROJECT FUNDING REQUEST FORM

Number: 20117

Project Cost: $248,900

Project Name: **Cornell C.C. Parking Garage Rehabilitation Phase 1 of 2**

New Asset/Expansion

Commission: Community & Fire Services

Useful Life: 25 Pre Approval: ☑

Department: Recreation Services

Project Mgr: Bob Bell / Janice Carroll

Category: Major

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This multiyear project is to address significant leaks at the Cornell C.C. parking garage. Phase 1 includes an engineering investigation to determine the best solution to address the issue which could include the design for a single storey roof structure above the current P3 level of the Cornell C.C. Parking Garage. Phase 2 will be construction, which will include remediation of damanged concrete as a result of water penetration.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	20,000	2,054,000
Internal Charges:	25,000	205,400
External Consulting:	200,000	0
Sub Total:	245,000	2,259,400
HST Impact:	3,872	36,150
Total Project Cost:	**248,900**	**2,295,600**

NOTES

Due to space and parking limitations, Cornell C.C. has a 3 storey parking structure that support users visiting the community centre. In 2018, the parking garage experienced significant leaks along the existing joints in its precast concrete panels and the garage also had significant damage to the traffic topping at the P3 level. This project includes two phases; design and construction. Phase one (Investigation and Design) will be completed in 2020 and phase two (Construction) will be completed in 2021. Cost estimates are preliminary and may change. Future phase under 2021.

SOURCE(S) OF FUNDING ($)		Components					Future
Funding Type	Budget	Consulting	Chargeback	Permit Fees	Permit Fees	TOTAL	Phases
Tax	248,900	203,520	25,028	20,352	0	248,900	2,295,600
TOTAL FUNDING	**248,900**					**248,900**	**2,295,600**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20127

Project Cost: $18,100

Project Name: **Heintzman House Floor Refinishing**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 12 Pre Approval: ☑

Department: Recreation Services

Project Mgr: Martin Barrow

Category: Minor

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Cost Validation: Recent awards

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to sand and recoat the existing hardwood flooring in the Banquet Hall, Crookshank Room, Bridal Suite, Childrens Room 2nd floor, and Grooms Room at Heintzman House. In order to preserve the floor's appearance and continue to make the space attractive to customers, staff recommends refurbishing the floor. Their will be 4,900 sq ft of floor being refurbished

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	17,800	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	17,800	0
HST Impact:	313	0
Total Project Cost:	**18,100**	**0**

NOTES

The existing wood flooring was installed in 1930 and is original to the Heintzman house. The amount requested is consistent with recent staff award plus inflation. $3.69/sqft x 4900 sqft = $18,100

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	18,100	0	0	0	0	0	0
TOTAL FUNDING	**18,100**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	58,800
Amount Incl HST	18,100
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Boiler $24k, Fireplace $7.8k (reduced from $8k), Floor refinishing $19.9k, Kitchen Stove $8.1k

2020 PROJECT FUNDING REQUEST FORM

Number: 20139

Project Cost: $597,100

Project Name: **Milliken Mills C.C. Lobby Enhancement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☑

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Cost Validation: Internal peer review

Requirement Validation: Condition assessment

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☑

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to add accessibility improvements and enhanced features and amenities to the main lobby and library areas at Milliken Mills C.C.. All features and amenities in the main lobby and library entrance area are original and were installed in 1989. The facility is outdated and its features and amenities need to be redesigned and replaced. Staff have experienced numerous issues with replacing and repairing parts and components (IE: Tiles), many of which are no longer in production. This project will also add additional accessibility improvements to support community needs.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	586,746	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	586,746	0
HST Impact:	10,327	0
Total Project Cost:	**597,100**	**0**

NOTES

To update the main lobby area, this project includes the redesign of the main lobby area, replace existing quarry tile, paint main lobby, replace library entrance with accessible doors and update existing washrooms. These features and amenities were installed in 1989. A condition assessment on these items in the lobby and library area indicate replacement is warranted. The amount requested was validated by an internal peer review conducted by Asset Management.

SOURCE(S) OF FUNDING ($)		Components				
Funding Type	Budget	Quarry tile	Consulting	Permits	TOTAL	Future Phases
Gas Tax	526,600	0	0	0	0	0
Operating Funded Life Cycle	70,500	48,500	12,000	10,000	70,500	0
TOTAL FUNDING	**597,100**				**70,500**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	1,483,700
Amount Incl HST	70,500
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle includes: Scoreboard $15.4k, Floor Machine $22.5k, Heat Exchanger $14.8k, Bleacher Heaters $24.4k, Arena Foundation $901.9k, Arena Board $223.9k, Arena Paint $8k, Furnace $103.8k, Bleachers Seating $29.2k, Flooring $119.7k, Mixing Values $4k (deferred), Filter Pump $3k (deferred), Life Safety Monitor $5k (deferred), Kitchen Equipment $8k (deferred)

2020 PROJECT FUNDING REQUEST FORM

Number: 20158

Project Cost: $250,600

Project Name: **Recreation Lighting Project Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 10 Pre Approval: ☑

Department: Recreation Services

Project Mgr: Ryan Hanna

Category: Minor

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☑ 5 ☑ 6 ☑ 7 ☐ 8 ☐

Cost Validation: Third party estimate

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

This project is to replace lighting in the Library at Angus Glen C.C, the gymnasium and pool change room at Cornell C.C, the pool change rooms at Centennial C.C, the interior and exterior lighting at the Pingle House.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	246,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	246,300	0
HST Impact:	4,335	0
Total Project Cost:	**250,600**	**0**

NOTES

A condition assessment of the lighting indicates replacement is warranted. E3: This replacement will result in annual cost savings in 2021, Cornell $14,322, Centennial $5,041, Angus Glen $33,562 for a total of $52,926. In 2020, annual savings will be : Centennial $ 2,520, Angus Glen $ 16,781, Cornell $ 14,322 for a total of $33,623. Payback for Centennial 2.5 yrs, Cornell 3.3 yrs, Angus Glen 4.9 yrs. The cost is consistent with recent staff award plus inflation.

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: Cornell	Centennial	Angus Glen	Pingle House	TOTAL	Future Phases
Operating Funded Life Cycle	250,600	47,590	15,000	151,200	36,810	250,600	0
TOTAL FUNDING	**250,600**					**250,600**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	-$33,623	$0	-$33,623

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	2,470,400
Amount Incl HST	250,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

Life Cycle Statement: Cornell $47,590, Centennial $15,000, Angus Glen $151,200, Pingle House $36,810.

2020 PROJECT FUNDING REQUEST FORM

Number: 20176

Project Cost: $2,796,600

Project Name: **Library Collections**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 7 Pre Approval: ☑

Department: Markham Public Library

Category: Annual

Project Mgr: Catherine Biss

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Collections are the Library's main product and are used heavily by the public, which expects currency. This requires ongoing acquisition of new materials, including those in print and non-print formats and non-English language materials, which are in high demand in Markham. In a 2016 survey of 1,400 residents, 97% indicated that it was important that MPL provides books and valued borrowing materials as the #1 Library service.

BUILDING MARKHAM'S FUTURE TOGETHER: Exceptional Services by Exceptional People

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	2,748,208	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	2,748,208	0
HST Impact:	48,368	0
Total Project Cost:	**2,796,600**	**0**

NOTES

Preliminary allocations (includes processing) as follows: Books & Subscriptions $970K / Audio-visual $365K / French $25K / Multilingual $300K / Microfilms $3.6K / Periodicals $100K / Electronic Resources $760K / Processing Supplies $230K. (Figures subject to revision based on material availability, customer needs and final Library review.) 25% of funding (excl. processing costs) devoted to non-English materials (i.e. Multilingual, French). Cost for replacement of existing E-Resources (when invoiced in USD) based on exchange rate of 1.35.

SOURCE(S) OF FUNDING ($)		Components					Future
Funding Type	Budget	Collection				TOTAL	Phases
Operating Funded Life Cycle	2,796,600	2,796,600	0	0	0	2,796,600	0
TOTAL FUNDING	**2,796,600**					**2,796,600**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	2,753,400
Amount Incl HST	2,796,600
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

The life cyle amount is based on the latest Library collections contract and is consistent with the 2019 Life Cycle Reserve Study; USD exchanged rate updated from 1.30 to 1.35 based on June 2019 forecast.

2020 PROJECT FUNDING REQUEST FORM

Number: 20197

Project Cost: $1,017,600

Project Name: **Block Pruning Initiative - Year 1 of 3**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☑

Department: Operations - Parks

Category: Major

Project Mgr: Miles Peart

Cost Validation: Third party estimate

Ward(s): CW ☑ 1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐ 8☐

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

3 year capital project to prune City trees proactivly to improve storm damage resistance and reduce residents complaints which currently are over 2,700 per year.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	1,000,000	2,000,000
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	1,000,000	2,000,000
HST Impact:	17,600	35,200
Total Project Cost:	**1,017,600**	**2,035,200**

NOTES

The City owns approximately 100,000 street trees. This program will address proactive street tree pruning of 23,333 trees per year through contracted services. Once the 70,000 trees have been pruned the remaining 30,000 trees will be addressed as part of the regular operating budget, which will need to be increased by $150,000 starting 2023. Currently, the tree inventory is not in a state of good repair & backlog led to this proactive approach to updating the asset.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget					TOTAL	Future Phases
Tax	1,017,600	0	0	0	0	0	2,035,200
TOTAL FUNDING	**1,017,600**					**0**	**2,035,200**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$150,000	$0	$150,000

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20209

Project Cost: $139,800

Project Name: **Pathways Resurfacing**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☑

Department: Operations - Parks

Category: Minor

Project Mgr: Scott Grieve

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Visual inspection

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Paving and repairs of pathways at various parks and locations. These locations are prone to wear and tear and washouts following heavy rain and flooding. Paving will help to alleviate this problem. Locations will be assessed and determined based on condition assessment in spring. Staff will investigate environmental options for future considerations.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	137,400	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	137,400	0
HST Impact:	2,418	0
Total Project Cost:	**139,800**	**0**

NOTES

Locations subject to condition assessment.
2020 Locations include Cricklewood Park, Huntington Park and Markham Green Golf Club.
There is no substantial backlog and the pathways are in a state of good repair.
Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	139,800	0	0	0	0	0	0
TOTAL FUNDING	**139,800**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	139,800
Amount Incl HST	139,800
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20210

Project Cost: $841,900

Project Name: **Playstructure Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 17 Pre Approval: ☑

Department: Operations - Parks

Category: Minor

Project Mgr: Scott Grieve

Cost Validation: Recent awards

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of playground equipment, as required, to maintain the current standards (CSA - Canadian Standards Association CAN/CSA-Z614-07. Children's Playspaces and Equipment"). There are 15 locations to be replaced in 2020 (see attached schedule).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	827,300	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	827,300	0
HST Impact:	14,560	0
Total Project Cost:	**841,900**	**0**

NOTES

Locations are subject to change based on condition assessment. Funding amount changes every year based on life cycle replacement of specific playstructures. Funding may be reallocated within the components of the project.
There is no substantial backlog upon completion of the 2020 project. Assets are in a state of good repair.
Milliken Mills playground structure will be accelerated to 2021 to coincide with the Milliken Mills rubberized surface which has been deferred to 2021 from 2020.
Amount requested is consistent with the 2019 Life Cycle Reserve

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	841,900	0	0	0	0	0	0
TOTAL FUNDING	**841,900**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	841,900
Amount Incl HST	841,900
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20228

Project Cost: $330,400

Project Name: **German Mills Meadow Environmental Monitoring Program**

Commission: Community & Fire Services

Department: Operations - Utility Inspection & Survey

Project Mgr: Robert Marinzel

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Repair/Replace

Useful Life: 0 Pre Approval: ☑

Category: Major

Cost Validation: Recent awards

Requirement Validation: Legislative compliance

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Hire a consultant for the management of the German Mills Meadow and Natural Habitat includes condition assessement, monitoring systems to ensure that appropriate protection is provided to abutting properties and German Mills Creek. This request is to hire a consultant to monitor for 3 years (2020-2023) to ensure methane gas concentrations are below MOE (Ministry of Environment) compliance levels and German Mills Creek is not adversely affected by the leachate.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	0
Internal Charges:	0	0
External Consulting:	324,700	0
Sub Total:	324,700	0
HST Impact:	5,715	0
Total Project Cost:	**330,400**	**0**

NOTES

This project is required every 3 years. Amount requested is consistent with the 2019 Life Cycle Reserve Study update.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget					TOTAL	Future Phases
Operating Funded Life Cycle	330,400	0	0	0	0	0	0
TOTAL FUNDING	**330,400**					**0**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	330,400
Amount Incl HST	330,400
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20239

Project Cost: $2,190,800

Project Name: **Streetlight Poles & Cable Replacement (Varley Village)**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 60 Pre Approval: ☑

Department: ES - Infrastructure

Category: Major

Project Mgr: Prathapan Kumar

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☐ 2 ☐ 3 ☑ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of aged underground streetlight cables and non-standard galvanized short street poles in Varley Village Area (refer to attached map).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	1,790,957	0
Internal Charges:	0	0
External Consulting:	362,000	0
Sub Total:	2,152,957	0
HST Impact:	37,892	0
Total Project Cost:	**2,190,800**	**0**

NOTES

This project includes replacement of aged underground streetlight cables and non-standard short galvanized streetlight poles (approx. 120-140 poles based on design outcome).
Unit cost is consistent with recent award plus inflation.
Amount requested is consistent with 2019 Life Cycle Reserve Study Update.
Energy savings due to LED fixtures is $7,260/year.

SOURCE(S) OF FUNDING ($)		Components				Future
Funding Type	Budget	Design + CA	Construction		TOTAL	Phases
Operating Funded Life Cycle	2,190,800	368,371	1,822,429	0	2,190,800	0
TOTAL FUNDING	**2,190,800**				**2,190,800**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	-$7,260	$0	-$7,260

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	2,190,900
Amount Incl HST	2,190,900
Year in the study	2026

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

These streelight poles and cables were originally scheduled for replacement between 2026-2032. However, it has been accelerated due to condition assessment. 2020 Life Cycle will be updated to reflect the changes.

2020 PROJECT FUNDING REQUEST FORM

Number: 20245

Project Cost: $607,200

Project Name: **Structures Rehabilitation (5 Structures) - Design & Const.**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 15 Pre Approval: ☑

Department: ES - Infrastructure

Category: Major

Project Mgr: Prathapan Kumar

Cost Validation: Multiple(specify)

Ward(s): CW ☐ 1 ☑ 2 ☑ 3 ☑ 4 ☐ 5 ☑ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Design and construction for rehabilitation of 5 structures (4 pedestrian bridges and 1 culvert). P005: Pomona Mills Park 95m W/Park Brook Rd; P012: Markham Civic Centre 15m W/Warden Ave; P083: Apple Creek North Park 60m NW/ Hoodview Ct.; P091: Toogood Pond 140m S/ Normandale Rd and Delhi Cres.; C089: Bur Oak Ave 245m E/Hwy 48. See attached map for locations.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	446,700	0
Internal Charges:	0	0
External Consulting:	150,000	0
Sub Total:	596,700	0
HST Impact:	10,502	0
Total Project Cost:	**607,200**	**0**

NOTES

This project includes rehabilitation of 5 structures (P005, P012, P083, P091, C089). Operations is responsible for preventative maintenance on bridges/culverts such as minor grading, patching, sealing of bridge approaches and decks, and siltation removal from culverts, while Env. Services is responsible for its inspection/rehabilitation and replacement.
Cost Validation: Recent award and external reviews.
Amount requested is consistent with 2019 life Cycle reserve Study Update.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	Design + CA	Construction			TOTAL	Future Phases
Operating Funded Life Cycle	607,200	152,640	454,560	0	0	607,200	0
TOTAL FUNDING	**607,200**					**607,200**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:	607,200
Amount Incl HST	607,200
Year in the study	2020

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20252

Project Cost: $10,868,900

Project Name: **West Thornhill Flood Control Implementation - Ph 3A Cons.**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 100 Pre Approval: ☑

Department: ES - Stormwater

Category: Major

Project Mgr: Jawaid Khan

Cost Validation: External peer review

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To continue with the flood remediation program in the West Thornhill area based on Class EA study recommendations. This budget request is for upgrading the storm sewer pipes in Phase 3A area. Program is as follows:
- Est. West Thornhill program cost - $77.9M (as of June 2014)
- Previous budget approved (up to Phase 2D) represents up to $56.1M which is 72% of the West Thornhill program cost (planned completion by 2025).

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	10,100,000	7,115,850
Internal Charges:	392,221	1,850,956
External Consulting:	195,497	1,748,400
Sub Total:	10,687,718	10,715,206
HST Impact:	181,201	156,011
Total Project Cost:	**10,868,900**	**10,871,200**

NOTES

Req. Validation: Council direction to upgrade the storm sewer system in West Thornhill to 100 year level protection.
Internal charges include associated staff recoveries. External charges include contract administration. The City will receive 40% ($4.19M) through a Federal Grant (see life cycle section for more details). Net cost to the City will be $6.29M (60%).

SOURCE(S) OF FUNDING ($)

Funding Type	Budget	Components: CA	Components: Construction	Components: Internal staff		TOTAL	Future Phases
Gas Tax	2,000,000	0	2,000,000	0	0	2,000,000	0
Reserve Fund	8,868,900	198,938	8,277,741	392,221	0	8,868,900	10,871,200
TOTAL FUNDING	**10,868,900**					**10,868,900**	**10,871,200**

OPERATING BUDGET IMPACT

Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

$2M is funded through gas tax and remaining $8.9M is funded through stormwater fee.
40% of the cost (excluding internal charges) will be reimbursed through Disaster Mitigation and Adaptation Fund (DMAF) received from the Federal Government ($48.64M) over 10 years for:
a)West Thornhill Flood Control Implementation – Phases 3 & 4 (Project cost: $62.5M)
b)Don Mills Channel (Project cost: $56.0M)
c)Thornhill Community Centre ($1.1M) and Gynwood Storm Sewer Upgrades (Project cost: $2.0M)

2020 PROJECT FUNDING REQUEST FORM

Number: 20256

Project Cost: $437,100

Project Name: **CI Watermain Rehabilitation - Design**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 0 Pre Approval: ☑

Department: ES - Waterworks

Category: Minor

Project Mgr: Jawaid Khan

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Detailed design for rehabilitation of cast iron (CI) watermain with CIPP (Cured-in-place pipe) liner at various locations (refer to attached map). CIPP relining is considered for this section as John Street is a heavy traffic street and the watermain is located close to the curb line.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	0	5,426,800
Internal Charges:	143,000	0
External Consulting:	289,042	0
Sub Total:	432,042	5,426,800
HST Impact:	5,087	95,512
Total Project Cost:	**437,100**	**5,522,300**

NOTES

This is an annual program (Phase 3a of 15; ending in 2032). Total CI Watermain: 54.1 km. As part of the CI watermain replacement program, 92% of aged CI watermain will be replaced with PVC and 8% will be rehabilitated with CIPP liner. This request is for design of CIPP relining of 4.2 km (8%) of CI watermain.
Construction and contract administration costs (Phase 3b) will be requested through 2021 capital budget request.

SOURCE(S) OF FUNDING ($)		Components					
Funding Type	Budget	Design	Internal staff			TOTAL	Future Phases
Waterworks	437,100	294,100	143,000	0	0	437,100	5,522,300
TOTAL FUNDING	**437,100**					**437,100**	**5,522,300**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20258

Project Cost: $5,897,500

Project Name: **CI Watermain Replacement-West Thornhill Ph 3A**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 90 Pre Approval: ☑

Department: ES - Waterworks

Category: Major

Project Mgr: Jawaid Khan

Cost Validation: Recent awards

Ward(s): CW ☐ 1 ☑ 2 ☐ 3 ☐ 4 ☑ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Condition assessment

DETAILED DESCRIPTION (SCOPE OF PROJECT):

Replacement of cast iron (CI) watermain that have reached end of the service life and to upgrade the sanitary sewer (Refer to attached map). As part of the cast iron watermain replacement program, aged cast iron watermains (current age 58 years; service life 60 years) will be replaced with the PVC watermain (1.8 km) with a service life of 90 years.

BUILDING MARKHAM'S FUTURE TOGETHER: Safe & Sustainable Community

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	5,600,000	0
Internal Charges:	0	0
External Consulting:	195,497	0
Sub Total:	5,795,497	0
HST Impact:	102,001	0
Total Project Cost:	**5,897,500**	**0**

NOTES

Total CI watermain inventory: 54.1 km as of 2019
All CI watermain will be replaced by the year 2032. There is no backlog in the watermain replacement program.

SOURCE(S) OF FUNDING ($)		Components				
Funding Type	Budget	Construction	CA		TOTAL	Future Phases
Waterworks	5,897,500	5,698,562	198,938	0	0 5,897,500	0
TOTAL FUNDING	**5,897,500**				**5,897,500**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost:

2020 PROJECT FUNDING REQUEST FORM

Number: 20265

Project Cost: $15,300

Project Name: **Wastewater System Instruments - Replacement**

Repair/Replace

Commission: Community & Fire Services

Useful Life: 6 Pre Approval: ☑

Department: ES - Waterworks

Category: Minor

Project Mgr: Henk Bouhuyzen

Cost Validation: Internal peer review

Ward(s): CW ☑ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐

Requirement Validation: Other(specify in Notes)

DETAILED DESCRIPTION (SCOPE OF PROJECT):

To replace 3 of 5 uninterrupted power supply (UPS) based on condition assessment and 5 industrial computers (IPC) with Microsoft Windows Operating systems (OS7) at the 5 pumping stations. OS7 will no longer be supported by Microsoft in 2020 and will not be producing or supplying any security patches for the operating system.

BUILDING MARKHAM'S FUTURE TOGETHER: Stewardship of Money & Resources

PROJECT COSTS ($)	2020	Future Phases
Cost/Quote:	15,000	0
Internal Charges:	0	0
External Consulting:	0	0
Sub Total:	15,000	0
HST Impact:	264	0
Total Project Cost:	**15,300**	**0**

NOTES

The remaining 2 UPS do not require replacement based on condition assessment.

SOURCE(S) OF FUNDING ($)	Components						
Funding Type	Budget	IPCs	UPS units			TOTAL	Future Phases
Waterworks	15,300	9,160	6,140	0	0	15,300	0
TOTAL FUNDING	**15,300**					**15,300**	**0**

OPERATING BUDGET IMPACT	Personnel	Non Personnel	Revenues	Expenditures/(Revenues)
	$0	$0	$0	$0

DCA/LIFE CYCLE DETAILS

DCA Name	Year	Amount	Amount in Study

Life Cycle

Amount in Study:

Amount Incl HST

Year in the study

DCA and/or Life Cycle: Explain if there is a change in the year and/or cost: