Chatham-Kent

DETAILED ASSET MANAGEMENT PLAN 2024

Parking

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Chatham-Kent Parking Report Card

1,439 parking spaces

46,864 m^2 Parking Lot Surface Area

101 parking meters

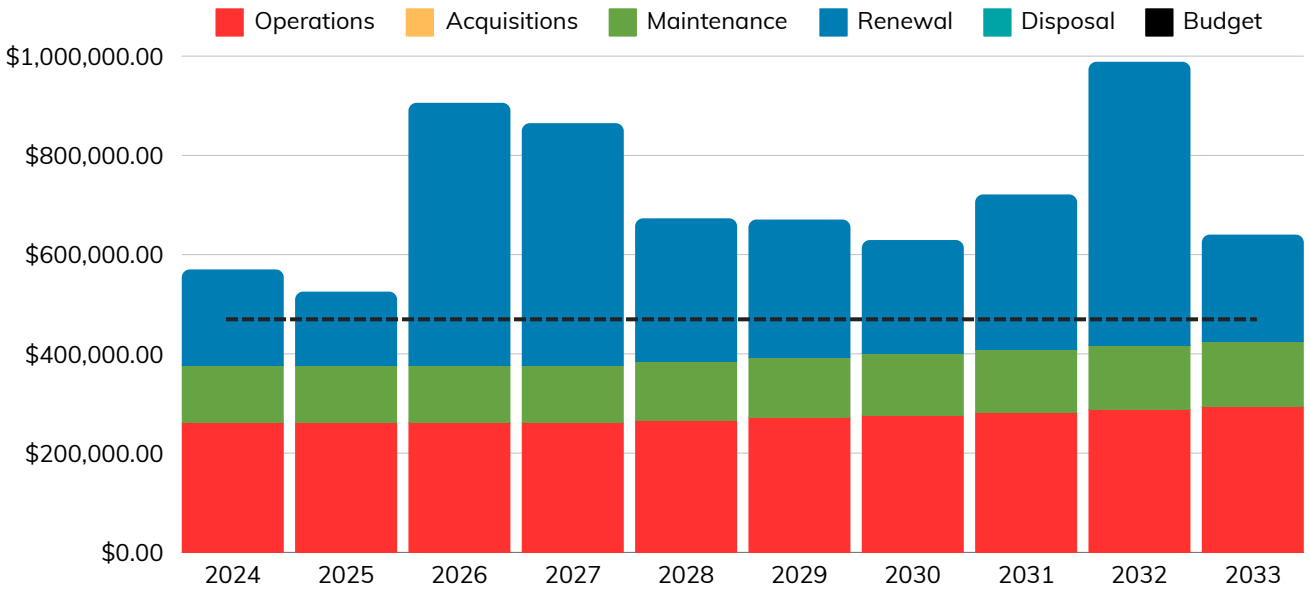
Annual Funding Gap	Asset Renewal Ratio	% OF 10-YEAR PLAN FUNDED
-$241,453	31%	66%

Asset Summary

Assets	Items	Replacement
Parking Lots	Parking Lots	$8,420,000
Parking Meter Equipment	Parking Meter Equipment	$409,000
Storm Water Infrastructure	Storm Water Infrastructure	$471,000

$9.3M Total Replacement Cost

10 Year Life Cycle Forecast



Data Confidence — Low | Medium | High

2.0 INTRODUCTION

2.1 Background / Purpose of Service

With amalgamation in 1998, the Municipality of Chatham-Kent began operating off-street municipal parking lots in 10 local communities. There are currently 44 public parking lots being operated, all within or near by the central downtown business area of the community.

The downtown parking system provides three types of parking: free, permit, and pay parking. Permit parking allows users to purchase monthly passes, while pay parking allows users to purchase parking time on demand on an hourly basis.
Municipal parking lots provide vehicle parking services primarily for downtown business area customers, employees, residents, and property owners. The properties in these areas do not have sufficient or no on-site parking and are therefore reliant on the municipal parking lots.
In addition to providing parking spaces for the downtown businesses, the parking lots provide parking requirements for special events and sometimes facilitate event activities. The downtown parking lots provide parking during snow emergencies when on-street parking is prohibited.

This is the first Detailed Asset Management Plan (DAMP) for Chatham-Kent's off-street parking service. Future iterations will see data improvements and as asset management knowledge matures across Chatham Kent there the breadth and scope of the plans will be refined to ensure it captures the full cost to deliver the parking service. The intention is to update the plan annually to ensure data quality improves to enable and support evidence-based decisions.
This DAMP will have a ten-year planning horizon at minimum and will connect fully to the LTFP by 2027. This parking DAMP will communicate the requirements for the sustainable delivery of off-street parking services through management of assets, program delivery, compliance with regulatory requirements, and required funding to provide the appropriate levels of service over the entire planning period.

The DAMP is to be read in combination with the other Chatham-Kent documents which should include the Strategic Asset Management Policy, along with these other key planning documents:

- Council strategic priorities
- 2024 - 2027 Multi-Year Budget
- Short-term and LTFPs

Understanding the DAMP with in the context of these documents ensures a comprehensive perspective of the parking management and development for today and into the future.
For a detailed summary of the assets covered in this DAMP refer to **Table 2.2.2**.

The infrastructure assets included in this plan have a total estimated replacement value of **$9.3 M.**

Key stakeholders in the preparation and implementation of this DAMP are shown in **Table 2.1**.

Table 2.1: Key Stakeholders in the DAMP

Key Stakeholder	Role in Asset Management Plan
Chatham-Kent Council	• Distribute resources to achieve planning objectives in service provision while effectively mitigating risks. • Back asset management initiatives to enhance understanding and guide decision-making. • Allocate funding to sustain the desired level of service throughout the entire life cycle.
Mayor/CAO	• Advocate for and champion the adoption of asset management principles within the organization. • Guarantee the availability of sufficient resources to foster the development of staff knowledge and skills, facilitating the implementation and ongoing enhancement of asset management practices.
General Manager, Infrastructure and Engineering Services	• Allocate resources to meet the organization's objectives in providing services while managing risks. • Overall responsibility for Asset Management, provide leadership in influencing decision-making processes related to Asset Management.

Key Stakeholder	Role in Asset Management Plan
Director, Engineering	• Ensure the municipal parking are safe, secure, clean, and well maintained. • Ensure the customer experience and services are a high priority, • Delivering nominated renewal, upgrade projects, • Reviews, updates, and manages regulatory manuals, and risk register.
Manager, Engineering	• Manages service delivery and provides expert opinion to inform asset management plan • Ensure the parking infrastructure is safe, secure, clean, and well maintained for the community. • Ensure the customer experience and services are a high priority.
Asset Management Team	• Provide support for the measures outlined in the DAMP aimed at improving asset management and service delivery. • Back the asset management-driven budget and LTFP with a 10-year horizon.
Community	• Engage in facilitated discussions to enable the municipality to comprehend the community's preferred level of service. • Express support for the DAMP, even if it involves reducing service levels, aligning with the community's objective of minimizing taxation.

Table 2.1: Key Stakeholders in the DAMP

The organizational structure for service delivery from infrastructure assets is detailed below:

Figure 2.1 Organizational structure

2.2 Asset Registry & hierarchy

An asset hierarchy provides a framework for structuring data in an information system to assist in collection of data, reporting information and making decisions. The hierarchy includes the asset class and component used for asset planning and financial reporting and service level hierarchy used for service planning and delivery.

The service hierarchy is shown is **Table 2.2.1** below:

Table 2.2.1: Asset Service Hierarchy

Service Hierarchy	Service Level Objectives
Parking lot Infrastructure (meters, pay and display machine	Parking revenue collection
Parking signs	Parking permit, lot number display
Parking lots	Parking service
Curbs and fencing	Safety of vehicles and users

Asset Registry

The assets covered by this DAMP are shown in **Table 2.2.2**.

The asset mix, including parking lots, on street infrastructure and storm water utilities is strategically located across Chatham-Kent to ensure equitable access for all residents. Issues such as aging infrastructure, insufficient funding for maintenance, and varying levels of usage present ongoing challenges to maintaining consistent service quality.

Table 2.2.2: Service Assets

Asset Category	Description	Age or Average Age	Average Condition	Avg Estimate Service life Remaining	Current Replacement Value
Parking lots (Paved surface, gravel, parking curbs, bumper blocks)	46,846 square meters (m2)	unknown	good	varies	$84,20,000
Parking meter Equipment	101 units	unknown	fair	varies	$409,000
Storm water facilities	Stormwater drains	varies	good	varies	$471,000
				Total Rep Value	**$ 9,300,000**

Current State of off-street parking lots

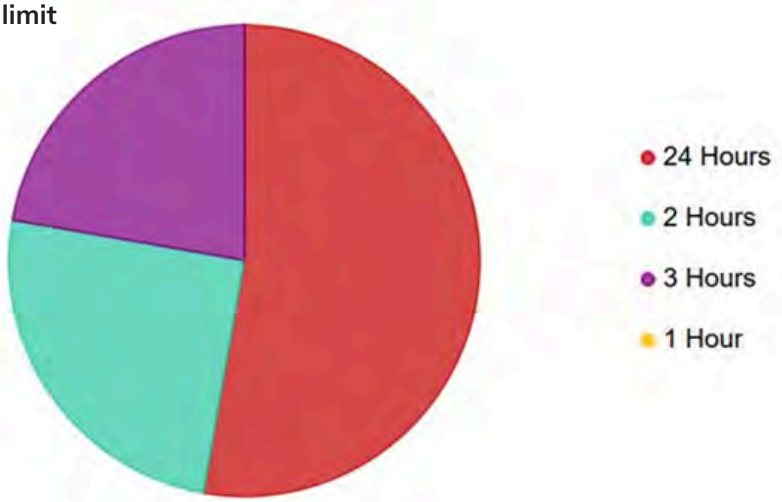
Chatham-Kent municipal Parking Program Inventory for each community is shown below:

Table 2.2.3: Community vise off street parking

Community	Off Street Parking
Blenheim	156
Bothwell	40
Chatham	568
Dresden	89
Highgate	10
Ridgetown	99

Community	Off Street Parking
Thamesville	13
Tilbury	36
Wallaceburg	353
Wheatley	75
Total	**1439**

Figure 2.2.4: Parking time limit



Answers	Count	Percentage
24 Hours	19	48.72%
2 Hours	9	23.08%
3 Hours	8	20.51%
1 Hour	0	0%

The date of construction of the majority of the parking lots is unknown but the most recent was constructed in 2013.

2.3 Asset Condition

Asset condition is currently monitored informally and since cyclic condition inspections of all asset classes are not a regular practice, there exists a very low data confidence in the current condition of assets. Overall, parking assets are not regularly inspected, monitored or assessed. This is an improvement action for the municipality and will be addressed when the municipality implements its asset lifecycle approach to the management of assets.

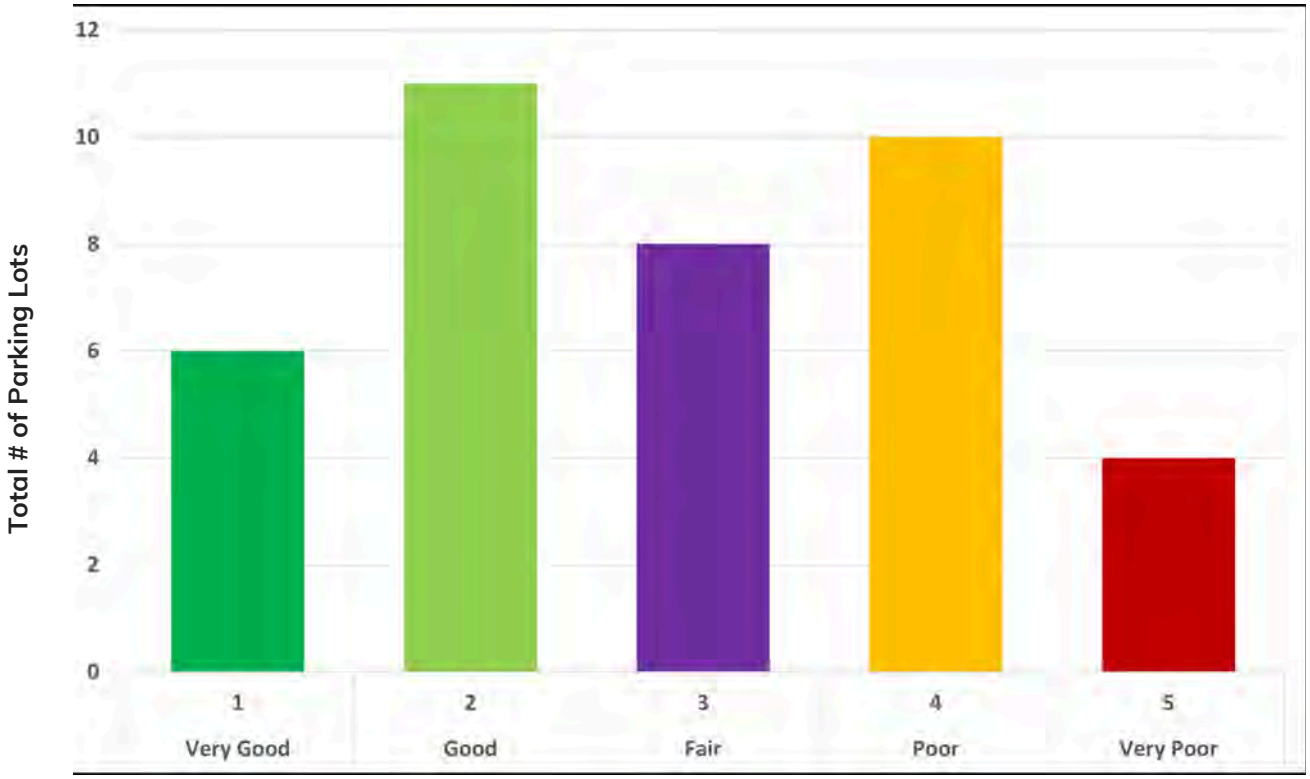
The below figure shows the number of parking lots inspected in spring 2024. Condition is measured using a 1 – 5 grading system as detailed in **Table 2.3.1**. It is important that a consistent approach is used in reporting asset performance enabling effective decision support. A finer grading system may be used at a more specific level, however, for reporting in the DAMP results are translated to a 1 – 5 grading scale for ease of communication.

Table 2.3.1: Condition Grading System

Condition Grading	Description of Condition
1	**Very Good**: free of defects, only planned and/or routine maintenance required
2	**Good**: minor defects, increasing maintenance required plus planned maintenance
3	**Fair**: defects requiring regular and/or significant maintenance to reinstate service
4	**Poor**: significant defects, higher order cost intervention likely
5	**Very Poor**: physically unsound and/or beyond rehabilitation, immediate action required

The average condition of the municipal parking assets is provided in **Figure 2.3.2** below.

Figure 2.3.2 Asset Condition Profile



Condition Grading	Description of Condition	Total number of parking lots
1	Very Good	6
2	Good	11
3	Fair	8
4	Poor	10
5	Very Poor	4

2.4 Asset capacity and performance

Assets are generally provided to meet design standards where these are available. However, there is insufficient resources to address all known deficiencies. Locations where deficiencies in service performance are known are detailed in **Table 2.4.1**.

Table 2.4.1: Known Service Performance Deficiencies

Location	Service Deficiency
Asphalt parking lots	Surface condition of some asphalt lots are in poor condition which requires more maintenance and create a liability risk.
Lease agreement	Some parking lots are on privately owned property and operated by the municipality under a lease agreement or under informal agreement arranged by the pre-amalgamated municipality.
Staffing	Only two available enforcement officers typically provide service in Chatham and Wallaceburg. Staff also do not typically work weekend shifts.
Location of parking lots	Many lots are spread across different towns in the municipality. The spatial location of the parking lots create challenges for enforcement, collection and general maintenance.

The above service deficiencies were identified from internal staff observations.

3.0 LIFECYCLE MANAGEMENT

The lifecycle management plan will detail how Chatham-Kent parking services plan to operate the assets at the agreed levels of service through managing its lifecycle costs. These costs are categorized by lifecycle phases which include acquisition, operations, maintenance, renewal and disposal. It is a budget-based approach but will evolve into a full lifecycle approach by 2027, where appropriate.

3.1 Acquisition Plan

Acquisition reflects new assets that did not previously exist or works which will upgrade or improve an existing asset beyond its existing capacity. They may result from growth, demand, social or environmental needs. Assets may also be donated to the Municipality of Chatham-Kent.

3.1.1 Selection Criteria

Proposed acquisition of new assets, and upgrade of existing assets, are identified from various sources such as community requests, proposals identified by strategic plans or partnerships with others. Potential upgrade and new works should be reviewed to verify that they are essential to the Entities needs. Proposed upgrade and new work analysis should also include the development of a preliminary renewal estimate to ensure that the parking services are sustainable over the longer term. Verified proposals can then be ranked by priority and available funds and scheduled in future works programs.

The priority ranking criteria is detailed in **Table 3.1.1**.

Table 3.1.1: Acquired Assets Priority Ranking Criteria

Criteria	Weighting
Safety	25%
Criticality	25%
Lifecycle cost	25%
Increased demand	25%
Total	100%

Summary of future asset acquisition costs

No Forecast acquisition identified in this plan. The future forecast acquisition capital works program will be shown in this section.
When an Entity commits to new assets, they must be prepared to fund future operations, maintenance and renewal costs. They must also account for future depreciation when reviewing long term sustainability. When reviewing the long-term impacts of asset acquisition, it is useful to consider the cumulative value of the acquired assets being taken on by the Chatham-Kent municipality. Expenditure on new assets and services in the capital works program will be accommodated in the LTFP, but only to the extent that there is available funding.

3.2 Operations Plan

Operations include regular activities to provide services. Examples of typical operational activities include snow clearing, street sweeping, asset inspection, coin collecting, and the necessary staffing resources to perform these activities. Some of the major operational investments over the next 10 years include:

- Parking lots improvement capital projects
- Parking lots inspections
- Permit Parking lots administration costs
- Parking lot enforcement and administration costs is offset by the revenue collected from the paid parking lots

Summary of forecast operations costs

Forecast operations costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future operations costs are forecast to increase. If assets are disposed of the forecast maintenance costs are expected to decrease. **Figure 3.2.1** shows the forecast operations costs relative to the proposed operations Vs Planned Budget.

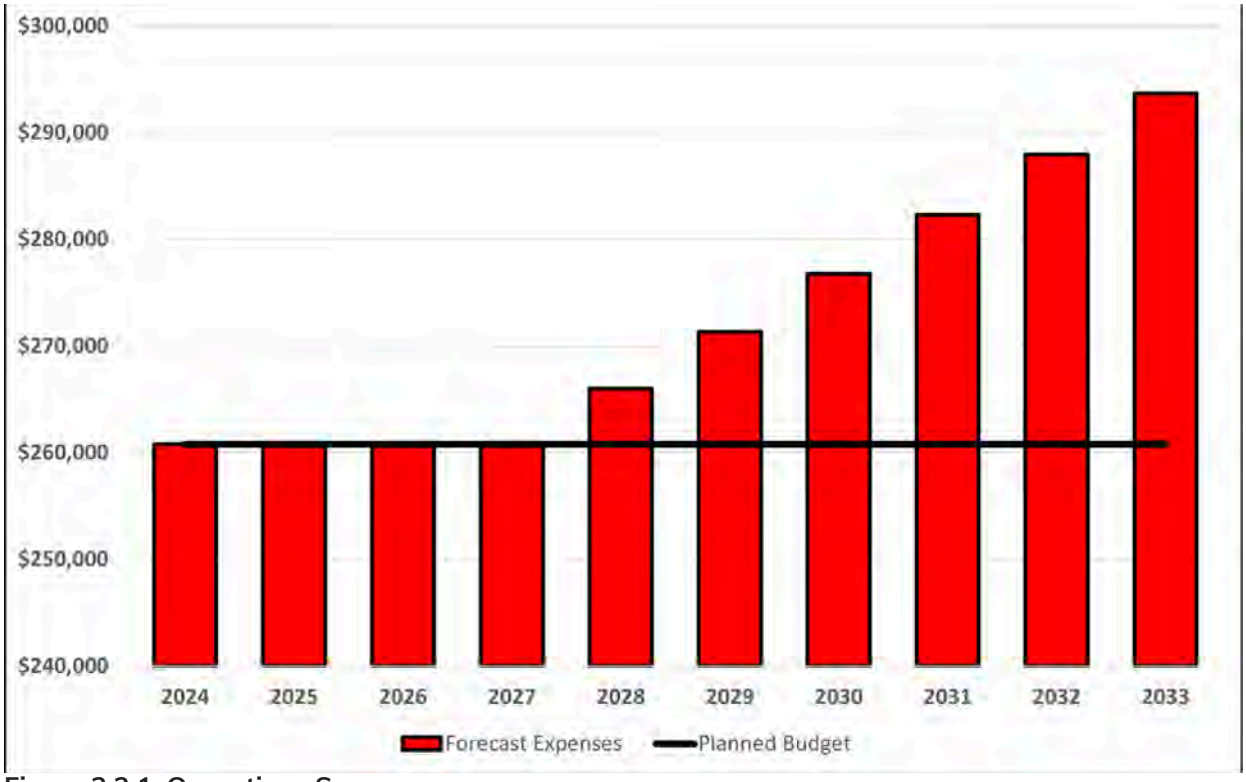


Figure 3.2.1: Operations Summary

Table 3.2.2: Operations Budget Trends

Year	Operations Budget $
2024	$260,800
2025	$260,800
2026	$260,800
2027	$260,800

All values are shown in 2024 dollar values

Parking lot Sign in Downtown Chatham

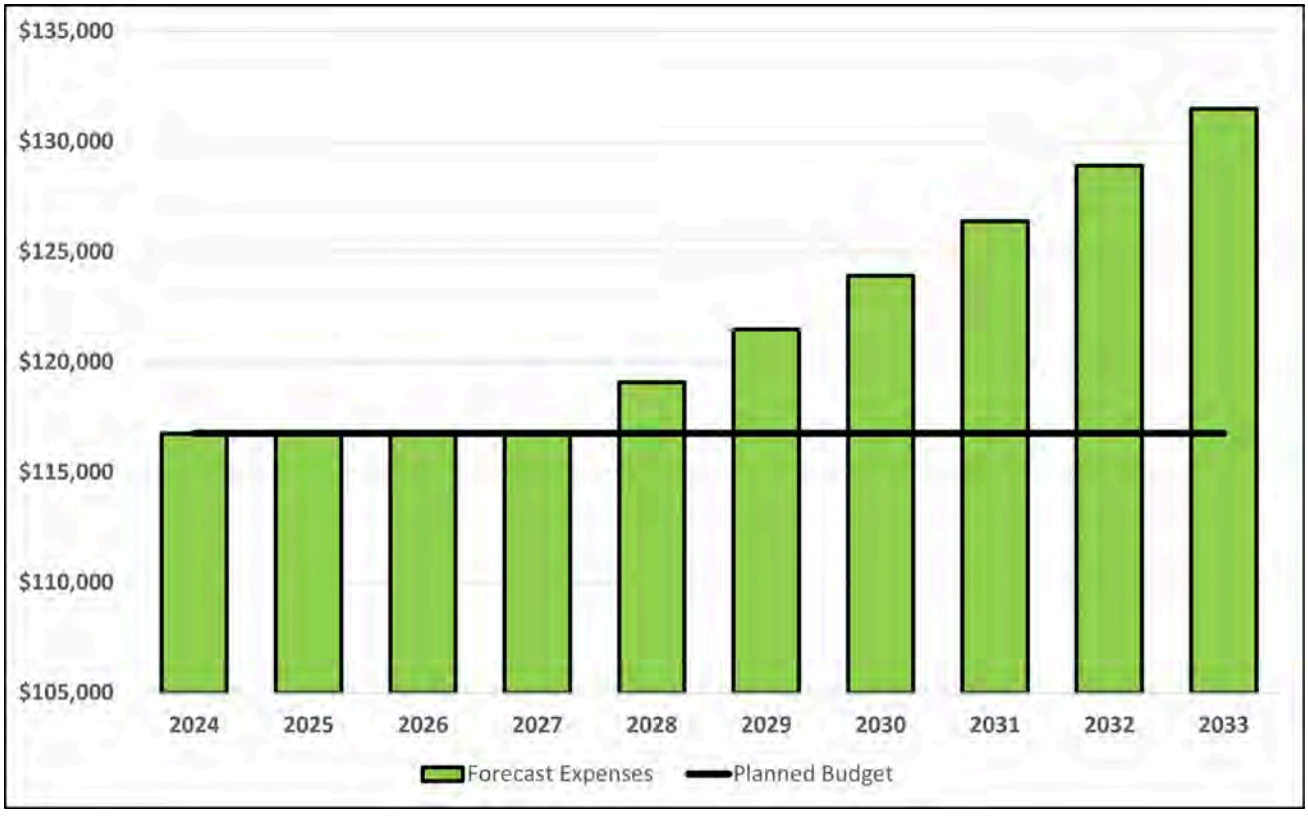
3.3 Maintenance Plan

Maintenance includes all actions necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating. Examples of typical maintenance activities include asphalt repairs, Mill and Pave the lots, line painting, patching, storm infrastructure upgrade, parking sign replacement and equipment repairs.

Summary of forecast maintenance costs

Forecast maintenance costs are expected to vary in relation to the total value of the asset stock. If additional assets are acquired, the future maintenance costs are forecast to increase. If assets are disposed of the forecast maintenance costs are expected to decrease.
Figure 3.3.1 shows the forecast maintenance costs relative to the proposed maintenance Planned Budget.

Figure 3.3.1: Maintenance Summary



All figure values are shown in 2024-dollar values.

Table 3.3.2: Maintenance Budget Trends

Year	Maintenance Budget $
2024	$116,800
2025	$116,800
2026	$116,800
2027	$116,800

Maintenance budget levels are not considered to be adequate to meet projected service levels, which may be less than or equal to current service levels. Where maintenance budget allocations are such that they will result in a lesser level of service, the service consequences and service risks have been identified and are highlighted in this DAMP & service risks considered in the Infrastructure Risk Management Plan. Assessment and priority of reactive maintenance is undertaken by staff using experience and judgement.

3.4 Renewal Plan

Renewal is major capital work which does not significantly alter the original service provided by the asset, but restores, rehabilitates, replaces or renews an existing asset to its original service potential. Work over and above restoring an asset to original service potential is considered to be an acquisition resulting in additional future operations and maintenance costs.

Assets requiring renewal are identified from one of two approaches in the Lifecycle Model.

- The first method uses **Asset Register** data to project the renewal costs (replacement cost) and renewal timing (acquisition year plus updated useful life to determine the renewal year), or
- The second method uses an **alternative approach** to estimate the timing and cost of forecast renewal work (i.e. condition modelling system, staff judgement, average network renewals, or other).

The typical useful lives of assets used to develop projected asset renewal forecasts are shown in **Table 3.4.1**. Asset useful lives were last reviewed on **May 1st, 2024**.

Table 3.4.1: Useful Lives of Assets

Asset (Sub) Category	Useful Life
Parking lots	20
Pay and display machine	10
Sinage	5
Parking meter	5

The estimates for renewals in this DAMP were based on the **asset register**.

3.4.2 Renewal ranking criteria

Asset renewal is typically undertaken to either:

- Ensure the reliability of the existing infrastructure to deliver the service it was constructed to facilitate (e.g. rebuilding an existing parking)
- To ensure the infrastructure is of sufficient quality to meet the service requirements (e.g. condition of a parking)

It is possible to prioritize renewals by identifying assets or asset groups that:

- Have a high consequence of failure
- Have high use and subsequent impact on users would be significant
- Have higher than expected operational or maintenance costs
- Have potential to reduce life cycle costs by replacement with a modern equivalent asset that would provide the equivalent service

The ranking criteria used to determine priority of identified renewal proposals is detailed in **Table 3.4.3.**

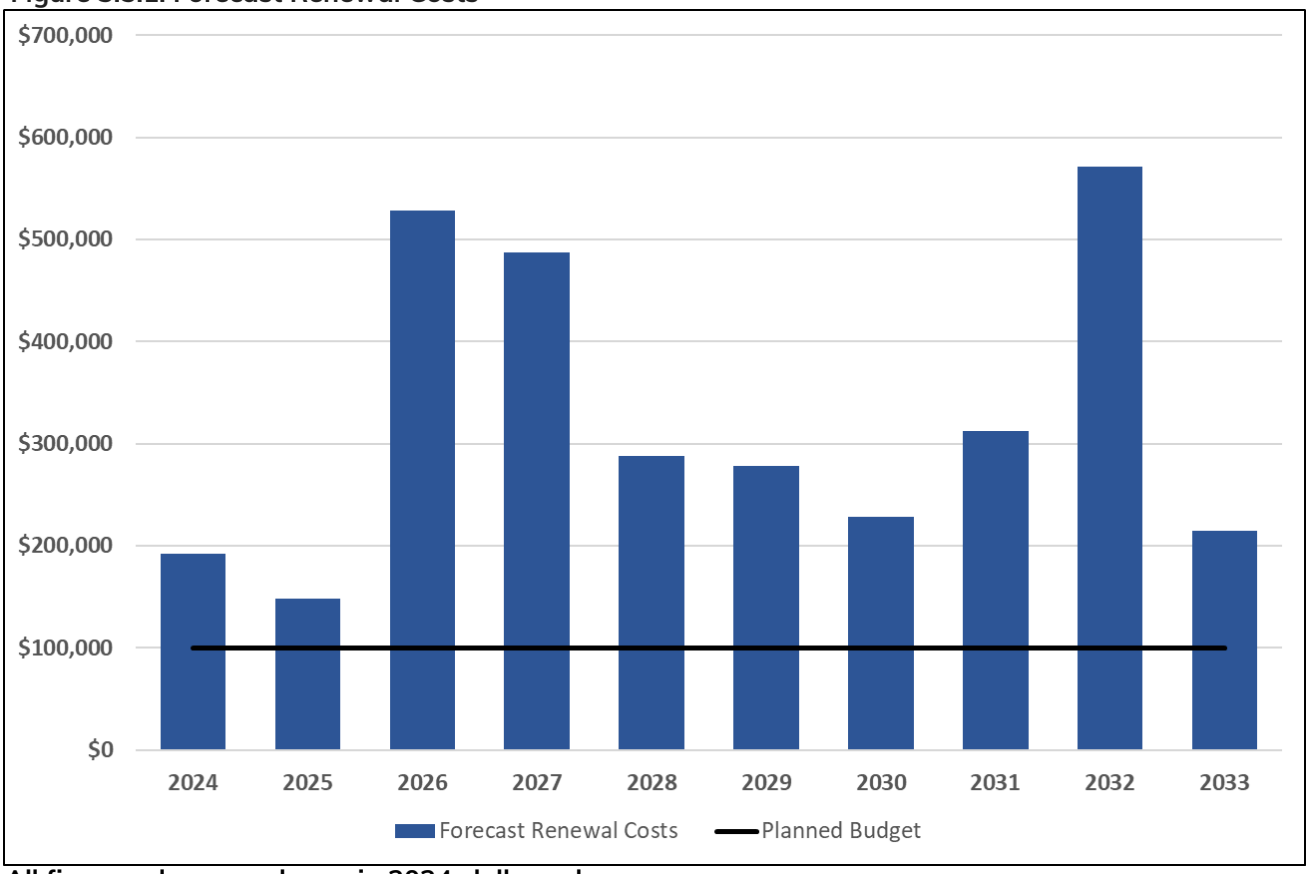
Table 3.4.3: Renewal Priority Ranking Criteria

Criteria	Weighting
Condition of the parking	80%
Change in need/Surface type change	20%
Total	**100%**

3.5 Summary of future renewal costs

Forecast renewal costs are projected to increase over time if the asset stock increases. The forecast costs associated with renewals are shown relative to the proposed renewal budget in **Figure 3.5.1.**

Figure 3.5.1: Forecast Renewal Costs



All figure values are shown in 2024-dollar values.

Capital parking lot improvements projects are planned and included in the long-term Parking budget. Only off-street parking lots are accounted for this DAMP.

Deferred renewal (assets identified for renewal and not scheduled in capital works programs) should be included in the risk analysis process in the risk management plan.

3.6 Disposal Plan

Disposal includes any activity associated with the disposal of a decommissioned asset including sale, demolition or relocation.
Any costs or revenue gained from asset disposals is included in the LTFP. Currently Chatham-Kent has no plan of disposed any Parking lots in next 10 years.
In the future if there are disposals this section will outline the costs, timing and service impacts to the parking DAMP.

3.7 Summary of asset forecast costs

The financial projections from this asset plan are shown in **Figure 3.7.1**. These projections include forecast costs for acquisition, operation, maintenance, renewal, and disposal. These forecast costs are shown relative to the proposed budget.
The bars in the graphs represent the forecast costs needed to minimize the life cycle costs associated with the service provision. The proposed budget line indicates the estimate of available funding. The gap between the forecast work and the proposed budget is the basis of the discussion on achieving balance between costs, levels of service and risk to achieve the best value outcome.

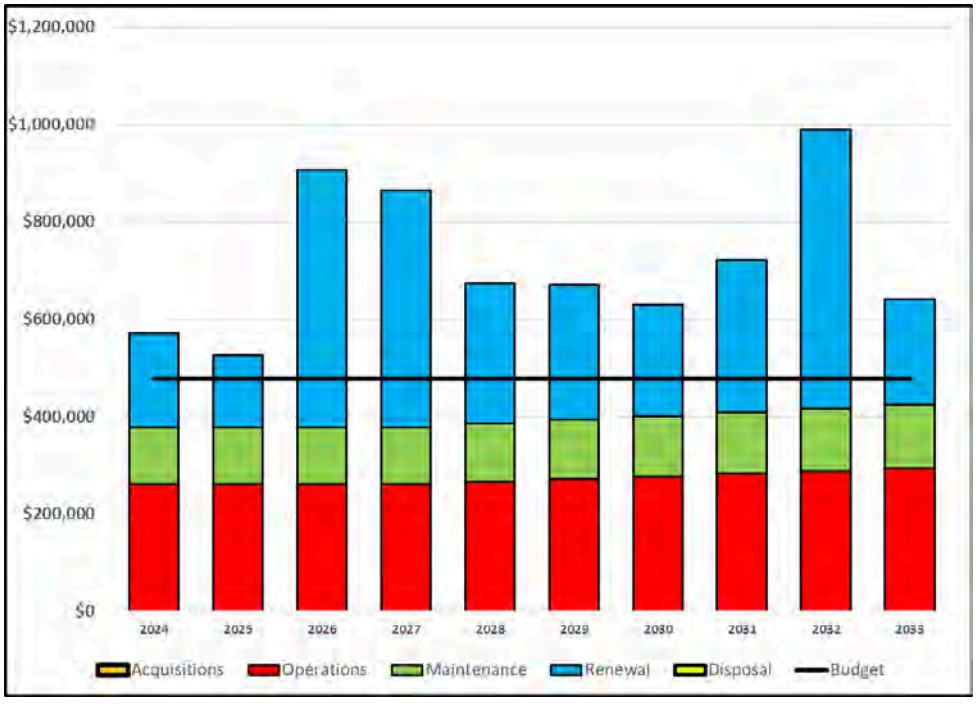


Figure 3.7.1: Lifecycle Summary

All figure values are shown in 2024 dollars value.

The planned budget is not sufficient to renew the existing facility components that are already in end-of-life cycle.

The budget also falls short of meeting the requirements for renewing the aging facility components that have reached the end of their operational lifespan.

Consequently, it is expected that service levels may decline, while the associated risks are likely to escalate.

4.0 LEVELS OF SERVICE

Levels of describe the value that parking service provides to the community and are typically spoken about in 'measures'. Utilizing service measures allow decision makers to understand what the outcome of investments will be to allow those making choices to clearly understand how a dollar more or less will impact Chatham-Kent ability to deliver its services. These measures also allow Chatham Kent to communicate with the public as to the cost of the services that they receive today and will be able to afford in the future.

Service levels are defined in four ways, legislative compliance, customer values, customer levels of service and technical levels of service.

4.1 Legislative Requirements

Meeting legislative requirements should be the bare minimum level of service Chatham Kent provides. These requirements often drive many lifecycle costs and staff tasks to ensure that Chatham Kent is compliant with all legislations that range from Federal to Provincial or even Chatham Kents own bylaws. There are many legislative requirements relating to the management of assets. Legislative requirements that impact the delivery of the parking service are outlined in **Table 4.1.1**.

Table 4.1.1: Legislative Requirements

Legislation	Requirement
O. Reg. 191/11: Integrated Accessibility Standards	Confirm each parking lot meets AODA compliance. Exterior paths of travel, ramps etc. Accessible Parking - Correct # of Accessible Spaces, signage
O. Reg. 191/11: Integrated Accessibility Standards	Requirements for design and condition of exterior paths of travel (i.e. walkways in, to and from parking lots)
Highway Traffic Act, R.S.O. 1990, c. H.8	sign dimension/descriptions https://www.ontario.ca/laws/regulation/900615/v1
O. Reg. 239/02: Minimum Maintenance Standards For Municipal Highways	Regulatory signage, Snow Removal, Luminaires, sidewalks in compliance with Minimum Maintenance Standards requirements (MMS)
Facility Accessibility Design Standards	2008 Facility Accessibility Design Standards https://www.chatham-kent.ca/localgovernment/council/Documents/committeesOfCouncil/Accessibility%20Advisory%20Committee/Facility%20Accessibility%20Design%20Standards.pdf
Municipal Class EA	Requirements for studies, public consultation, and notifications for operating and maintaining municipal parking lots, as well as constructing or decommissioning facilities/elements. (Note: routine operation and maintenance is pre-approved without public notification)

4.2 Customer Research and Expectations

This DAMP is prepared to facilitate consultation prior to adoption of levels of service by the council. Future revisions of the DAMP will incorporate customer consultation on service levels and costs of providing the service. This will assist the council and stakeholders in matching the level of service required, service risks and consequences with the customer's ability and willingness to pay for the service.

parking currently have no research on customer expectations. This will be investigated through customer engagement survey for future updates of the DAMP.

4.3 Customer Value

Service levels are defined in three ways, customer values, customer levels of service and technical levels of service.

Customer Values indicate:

- what aspects of the service is important to the customer,
- whether they see value in what is currently provided and
- the likely trend over time based on the current budget provision

Table 4.3.1: Customer Values

Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
Function	Users can enter, exit, and pay for parking without encountering accessibility barriers.	Unknown	Review projected budget for parking assets.
Lighting	Sufficient illumination for obstacles in the lot to be visible and for users to feel safe.	Unknown	Review projected budget for parking assets.
Surface condition (Paved/ Unpaved)	No toe trips, uneven surfaces, significant ponding, or potholes that could damage a vehicle.	Unknown	Review projected budget for parking assets.

Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
Winter Maintenance timelines	Lot is clear of snow in a reasonable time after a storm. Lot is clear of ice unless there was recent freezing rain	Unknown	Review projected budget for parking assets
Access to sidewalk network	Users can walk from the lot to nearby sidewalks without accessibility barriers or traffic hazards	Unknown	Review projected budget for parking assets
Parking Lot Assets - Pay & Display Machine, Signs, Curb, Line Marking, etc.	Pay and display machines should work when needed. Signs, curbs, line markings, etc., should be present enough to indicate proper use of the lot.	Unknown	Review projected budget for parking assets.
Runoff Condition	No significant ponding except during a flooding event.	Unknown	Review projected budget for parking assets
Price of Parking	User fees should remain reasonable for the service provided.	Unknown	Review projected budget for parking assets.
User safety and comfort	Parking lots users should feel comfortable and safe when accessing the service.	Unknown	Review projected budget for parking assets.
Multiple Payment Options	Explore opportunities for digital payment options.	Unknown	Review projected budget for parking assets.

Table 4.3.1: Customer Values

Customer Values	Customer Satisfaction Measure	Current Feedback	Expected Trend Based on Planned Budget
Price of Parking	User fees should remain reasonable for the service provided.	Unknown	Review projected budget for parking assets.
User safety and comfort	Parking lots users should feel comfortable and safe when accessing the service.	Unknown	Review projected budget for parking assets.
Multiple Payment Options	Explore opportunities for digital payment options.	Unknown	Review projected budget for parking assets.
EV Charging Spots	EV charging spots should be provided where unmet demand exists.	No EV charging available at the off-street parking lots at present	Review projected budget for parking assets.
Availability of Parking	Sufficient supply of parking is available to users.	Unknown	Review projected budget for parking assets.

Table 4.3.1: Customer Values

4.4 Customer Levels of Service

The Customer Levels of Service are considered in terms of:
Condition: How good is the service - what is the condition or quality of the service?
Function: Is it suitable for its intended purpose - Is it the right service?
Capacity/Use: Is the service over or under used - do parking need more or less of these assets?

In **Table 4.4.1** under each of the service measures types (Condition, Function, Capacity/Use) there is a summary of the performance measure being used, the current performance, and the expected performance based on the current budget allocation.

These are measures of fact related to the service delivery outcome (e.g. number of occasions when service is not available or proportion of replacement value by condition %'s) to provide a balance in comparison to the customer perception that may be more subjective.

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Condition	Sufficient illumination for obstacles in the lot to be visible and for users to feel safe	Customer Engagement Survey Required	Not Available	Review projected budget for parking assets
Condition	No toe trips, uneven surfaces, significant ponding, or potholes that could damage a vehicle	Customer Engagement Survey Required	Visual inspection by Engineering Staff	Review projected budget for parking assets
Condition	lot is clear of snow in a reasonable time after a storm. Lot is clear of ice unless there was recent freezing rain	Customer Engagement Survey Required	Average survey opinion if users felt lots were maintained in a reasonable time after a snow event	Review projected budget for parking assets
Condition	Pay and display machines should work when needed. Signs, curbs, line markings, etc., should be present enough to indicate proper use of the lot	Customer Engagement Survey Required	Average survey opinion if users felt lots were maintained in a reasonable time after a snow event	
Condition	No significant ponding except during a flooding event	Customer Engagement Survey Required	Average survey opinion if users felt lots were maintained in a reasonable time after a snow event	Review projected budget for parking assets
Function	Users can enter, exit, and pay for parking without encountering accessibility barriers	Customer Engagement Survey Required	Average survey opinion if users feel Chatham-Kent parking lots are meeting needs for accessibility	Review projected budget for parking assets

Table 4.4.1: Customer Level of Service Measure

Type of Measure	Level of Service	Performance Measure	Current Performance	Expected Trend Based on Planned Budget
Function	Users can walk from the lot to nearby sidewalks without accessibility barriers or traffic hazards	Customer Engagement Survey Required	Technical Level of service	Review projected budget for parking assets
Capacity	User fees should remain reasonable for the service provided	Customer Engagement Survey Required	Average survey opinion if Chatham-Kent is providing good value for the fees when providing parking	Review projected budget for parking assets
Capacity	Explore opportunities for digital payment options	Customer Engagement Survey Required	Average survey opinion if current payment option is meeting the needs of the user	Review projected budget for parking assets
Capacity	EV charging spots should be provided where unmet demand exists	Customer Engagement Survey Required	Average survey opinion if the service is meeting the needs of users who need access to EV infrastructure	Review projected budget for parking assets
Capacity	Sufficient supply of parking is available to users	Customer Engagement Survey Required	Average survey opinion if supply of parking is meeting the needs of users	Review projected budget for parking assets

Table 4.4.1: Customer Level of Service Measure

4.5 Technical Levels of Service

Technical Levels of Service – To deliver the customer values, and impact the achieved Customer Levels of Service, are operational or technical measures of performance.

These technical measures relate to the activities and allocation of resources to best achieve the desired customer outcomes and demonstrate effective performance. Technical service measures are linked to the activities and annual budgets covering:

Acquisition – the activities to provide a higher level of service (e.g. expanding a parking lot, replacing gravel surface with asphalt) or a new parking service that did not exist previously (e.g. a new parking lot).

Operation – the regular activities to provide services (e.g. Customer interactions, garbage collection, utility bills, cleansing, mowing grass, parking administration, inspections, etc.)

Maintenance – the activities necessary to retain an asset as near as practicable to an appropriate service condition. Maintenance activities enable an asset to provide service for its planned life (e.g. building and structure repairs, replacing components of a storm water infrastructure, crack sealing)

Renewal – the activities that return the service capability of an asset up to that which it had originally provided (e.g. minor or major asset rehabilitations, asset replacements and capital improvement projects)

Service and asset managers plan, implement and control technical service levels to influence the service outcomes.

Table 4.5.1 shows the activities expected to be provided under the current 10 year Planned Budget allocation, and the Forecast activity requirements being recommended in this DAMP.

Table 4.5.1: Technical Levels of Service

Lifecycle Activity	Level of Service Statement	Activity Measure	Current Performance	Recommended Performance
Operation	No of staff hours to collect from the parking meter	TBD	Only two parking attendants available for the weekdays only	Meet Minimum Maintenance Standards regulations
Operation	Annual inspections	Describe the Measure being used for performance monitoring	The operation activities that can be done within the current Planned Budget restraints	The operation activities parking would like to do as per the Lifecycle Forecast
Operation	Sufficient supply of parking is available to users	Parking study to determine utilization rates in all lots	Data available - varies by lot and urban center	Determine a target utilization rate
Operation	Meet O. Reg. 239/02: Minimum Maintenance Standards for Municipal Highways	Average response time to plow and salt parking lots after winter snow event	Need to measure (Average Response Time)	Meet Minimum Maintenance Standards regulations
Operation	User fees should remain reasonable for the service provided	Parking study to determine utilization rates in all lots	Data available - varies by lot and urban center	Determine a target utilization rate
		Budget	$260,807	Average for the Planning Period of the Forecast Cost for Operation

Lifecycle Activity	Level of Service Statement	Activity Measure	Current Performance	Recommended Performance
Maintenance	Fixing potholes	Capital Improvement projects	The Maintenance activities that can be done within the current Planned Budget restraints	The Maintenance activities parking would like to do as per the Lifecycle Forecast
		Budget	$101,760	Average for the Planning Period of the Forecast Cost for Maintenance.
Renewal	Planning to replacement	Capital Improvement projects	The Renewal activities that can be done within the current Planned Budget restraints	The Renewal activities parking would like to do as per the Lifecycle Forecast

Notes:

- Current activities related to Planned Budget.
- Expected performance related to forecast lifecycle costs.
- It is important to monitor the service levels regularly as circumstances can and do change. Current performance is based on existing resource provision and work efficiencies. It is acknowledged changing circumstances such as technology and customer priorities will change over time.

5.0 FUTURE DEMAND

5.1 Demand Drivers

Drivers affecting demand include things such as population change, regulations, changes in demographics, seasonal factors, vehicle ownership rates, consumer preferences and expectations, technological changes, economic factors, agricultural practices, environmental awareness, etc.

5.2 Purpose Statement

This DAMP is prepared under the direction of the Municipality of Chatham-Kent's vision, mission, goals and objectives.
Our vision is:
To provide safe, sufficient, and accessible parking lots in the communities of Chatham-Kent.

Our mission is:
The Corporation of the Municipality of Chatham-Kent is a proud, proactive, progressive team committed to innovation and leadership through the provision of services enhancing the quality of life in our community.

Strategic goals have been set by Chatham-Kent Council. The relevant goals and objectives and how these are addressed in this DAMP are summarized in **Table 5.2.1.**

Table 5.2.1: Goals and how these are addressed in this Plan

Council strategic priorities	Objective	How Goal and Objective are addressed in the DAMP
Grow Our Community	Strategic investments to diversify, rationalize assets and level of services	This plan will ensure Council is making informed decisions on its investment and achieving value for money from its investment in the long term
Promote Community Safety & Well Being	Explore new and enhance existing recreational opportunities	An assessment of demand drivers was conducted as part of the DAMP to effectively respond to the growth of our community
Ensure Environmental Sustainability	Enhance community resiliency to climate change impacts	Proactive environmental mitigation strategies will be addressed in the Climate Change section

5.3 Demand Forecasts

The present position and projections for demand drivers that may impact future service delivery and use of assets have been identified and documented.

5.4 Demand Impact and Demand Management Plan

The impact of demand drivers that may affect future service delivery and use of assets are shown in **Table 5.4.1**. Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management. Demand management practices can include non-asset solutions, insuring against risks and managing failures. Opportunities identified to date for demand management are shown in **Table 5.4.1** below. Further opportunities will be developed in future revisions of this DAMP.

Table 5.4.1: Demand Management Plan

Demand Driver	Current Position	Projection	Impact on services	Demand Management Plan
Zoning by-law parking supply requirements	In parking exempt areas, no off-street parking is required for existing buildings. In other cases, the normal zoning parking supply requirement applies	The general trend in other municipalities is to reduce or eliminate zoning parking minimums, especially in core and urban main street areas	Reductions in zoning by-law parking supply requirements will tend to increase demand for on- and off-street municipal parking.	Monitor usage through regular parking demand studies
Special events in areas served by municipal lots	94 Events requiring Engineering Review in 2023	The number of special events tends to grow each year	Increased special events (in number or size) will tend to increase demand for on-and off-street municipal parking, especially in evenings and on weekends	Proactive Parking Enforcement during these events to ensure permit holders have access to their spaces

Table 5.4.1: Demand Management Plan

Demand Driver	Current Position	Projection	Impact on services	Demand Management Plan
Automobile mode share (changing travel patterns) (Environmental Sustainability - 5. Improve Sustainable Mobility)	Majority of current trips are single occupancy vehicle	More multi-modal transportation options will become available	Less trips of single occupants will result in decreased demand	Influence different travel options to reduce the demand
Ridesharing and taxi services	1 rideshare service (Uride) operates in Chatham-Kent	Other competing rideshare services will likely enter the Chatham-Kent market	Increased use of rideshare services will tend to reduce demand for municipal parking	Influence different travel options to reduce the demand
Parking user fees - municipal	User fees in place for higher-demand lots and spaces in Chatham and Wallaceburg downtowns. No user fees for municipal lots elsewhere	Municipal rates can be expected to increase. Some lots may be converted from pay lots to free	Increases to parking user fees could reduce demand in municipal parking lots	Monitor usage through regular parking demand studies and adjust fees accordingly
Parking user fees - non-municipal	Most non-municipal parking is free. Exceptions include hospitals and some residential apartments	Rates for non-municipal paid lots can be expected to increase	Increases to parking user fees at non-municipal lots could shift demand to municipal parking lots	Monitor usage through regular parking demand studies and adjust fees accordingly.

Table 5.4.1: Demand Management Plan

Demand Driver	Current Position	Projection	Impact on services	Demand Management Plan
Changes to Parking Supply	Some parking lots are leased, owners could terminate lease with short notice	Development will reduce available parking as lots become converted	Sufficient parking spaces may not be available	Investigate ways to distribute demand to underutilized lots (ex. Parking App) Investigate ways to increase reliability of future parking supply (e.g. negotiate different lease terms)
Population and Employment Growth (Grow our Community - 4. Business and Workforce Development)	Population: 102,042 (2021 Census) Employment: 39,000 (Watson & Associates estimate)	Population: 116,000 (reference scenario) Employment: 43,000 (reference scenario)	Growth will not be the same in each town in the municipality. Demand may increase or decrease in certain areas.	Investigate ways to distribute demand to underutilized lots (ex. Parking App)
New Developments (Grow our Community - 5. Downtown Renewal)	Many businesses in downtown areas have zero or limited off-street parking	Parking supply will not automatically increase as land is developed. Zoning by-law has zero parking supply requirement for certain developments in downtown areas	Sufficient parking spaces may not be available	Investigate ways to distribute demand to underutilized lots (ex. Parking App). Manage parking demand through transportation demand management (TDM) tools

Table 5.4.1: Demand Management Plan

Table 5.4.1: Demand Management Plan

Demand Driver	Current Position	Projection	Impact on services	Demand Management Plan
Economic activity in areas served by municipal lots	Significant commercial vacancy rate in downtown areas	Vacancy rate will decrease	Increased parking demand in municipal lots	Investigate ways to distribute demand to underutilized lots (ex. Parking App). Manage parking demand through transportation demand management (TDM) tools
Online shopping	Online sales make up 6.2% of retail sales (Stats Can)	Proportion of sales made online will increase	Retail-related parking demand may decrease, or not grow as fast as other parking demand drivers. Demand for short-duration retail pickup parking may increase	Monitor usage through regular parking demand studies and adjust parking regulations accordingly

5.5 Asset Programs to meet Demand

The new assets required to meet demand may be acquired, donated or constructed. Acquiring new assets will commit the Municipality of Chatham-Kent to ongoing operations, maintenance and renewal costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operations, maintenance and renewal costs for inclusion in the Long Term Financial Plan (LTFP).

6.0 RISK MANAGEMENT PLANNING

The purpose of infrastructure risk management is to document the findings and recommendations resulting from the periodic identification, assessment and treatment of risks associated with providing services from infrastructure, using the fundamentals of International Standard ISO 31000:2018 Risk management – Principles and guidelines. Risk Management is defined in ISO 31000:2018 as: 'coordinated activities to direct and control with regard to risk'.

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences. The risk assessment process identifies credible risks, the likelihood of the risk event occurring, and the consequences should the event occur. The risk assessment should also include the development of a risk rating, evaluation of the risks and development of a risk treatment plan for those risks that are deemed to be non-acceptable.

6.1 Critical Assets

Critical assets are defined as those which have a high consequence of failure causing significant loss or reduction of service. Critical assets have been identified and along with their typical failure mode, and the impact on service delivery, are summarized in **Table 6.1.1.** Failure modes may include physical failure, collapse or essential service interruption.

Critical Asset(s)	Failure Mode	Impact
Parking Lots	High	unable to provide Parking service
Parking Meters and Signs	Medium	impact on level of service
EV Charging Stations	Medium	impact on level of service

Table 6.1.1 Critical Assets

By identifying critical assets and failure modes an organisation can ensure that investigative activities, condition inspection programs, maintenance and capital expenditure plans are targeted at critical assets.

6.2 Risk Assessment

The risk management process used by Chatham-Kent is an analysis and problem-solving technique designed to provide a logical process for the selection of treatment plans and management actions to protect the community against unacceptable risks. The process is based on the fundamentals of International Standard ISO 31000:2018.

The risk assessment process identifies credible risks, the likelihood of the risk event occurring, the consequences should the event occur, development of a risk rating, evaluation of the risk and development of a risk treatment plan for non-acceptable risks.

An assessment of risks associated with service delivery will identify risks that will result in loss or reduction in service, personal injury, environmental impacts, a 'financial shock', reputational impacts, or other consequences.

Critical risks are those assessed with 'Very High' (requiring immediate corrective action) and 'High' (requiring corrective action) risk ratings identified in the infrastructure risk management plan. **Table 6.2.1** shows initial asset registry risk assessment completed for the DAMP. Future iterations of the risk assessment will include residual risk and treatment costs of implementing the selected treatment plan. It is essential that these critical risks and expenses are reported to management and the council.

Asset Providing the Service	What can Happen	When can it occur?	Possible Cause	Existing controls	Likelihood
Parking Lot - Pavement	Pavement not renewed at end of service life, increased maintenance costs, lower LOS	anytime	Lack of preventative maintenance	Maintenance is done when required	likely
Parking Lot - Storm Sewers/Catch basins	Storm Sewer Failure - flooding or sinkhole	anytime	Lack of preventative maintenance	Maintenance is done when required	likely

Table 6.2.1: Risks and Treatment Plans

Table 6.2.1: Risks and Treatment Plans

Asset Providing the Service	What can Happen	When can it occur?	Possible Cause	Existing controls	Likelihood
Parking Lot - Lighting	Lighting Infrastructure failure (poles/luminaires/cables)	anytime	Lack of preventative maintenance	Maintenance is done when required	possible
Parking Lot - AODA Compliance	Current lots do not meet AODA requirements, preventing access for all	anytime	Implement AODA requirements when lots are renewed	lack of budget for renewing parking lots	rare
Pay & Display Machine	Machine out of service	anytime	Solar power (some machines) Inspections & preventative maintenance	Power feed failure, Cell data Hardware fault financial institution payment processing system issue	rare
Parking Lot (leased)	Lease termination by owner	within 1 year	Redevelopment plans unsuccessful negotiations Conversion to private parking	Some leases require large payment from owner at end of tenancy	possible
Enforcement and Meter Collections	Contract default Significant cost escalations	anytime	When provided by staff: collective bargaining When outsourced: higher than expected bids	When outsourced: competitive bidding process	possible
Enforcement and Meter Collections	contract default	within 2-3 years	Financial issues with contractor (bankruptcy)	N/A	possible
Parking Lot	Lot inaccessible	anytime in future	Construction activity in ROW at or near lot access	Multiple access points (some lots) Posted notices to nearby properties & BIA Social Media	likely

6.3 Infrastructure Resilience Approach

The resilience of parking critical infrastructure is vital to the ongoing provision of services to customers. To adapt to changing conditions we need to understand our capacity to 'withstand a given level of stress or demand', and to respond to possible disruptions to ensure continuity of service.
Resilience recovery planning, financial capacity, climate change risk assessment and crisis leadership.

Chatham-Kent does not currently measure its resilience in transit service delivery. This will be included in future iterations of the DAMP.

6.4 Service and Risk Trade-Offs

The decisions made in adopting this DAMP are based on the objective to achieve the optimum benefits from the available resources.

6.4.1 What cannot be done

There are some operations and maintenance activities and capital projects that are unable to be undertaken within the next 10 years. These include:

- Resurfacing and maintenance of the Parking lots
- Fully fund capital upgrades and replacements
- Increase operations, maintenance, and renewal activities to industry standard levels
- Address maintenance requirements for new assets acquired through donation or transfer of responsibility
- Mitigate all risks associated with these upgrades and replacements

6.4.2 Service trade-off

If there is forecast work (operations, maintenance, renewal, acquisition or disposal) that cannot be undertaken due to available resources, then this will result in service consequences for users. These service consequences include:

- As the condition of parking infrastructure continue to deteriorate it will result in a lower level of service
- Impacts on availability of parking lots
- Reduced hours of operation, as a result decrease in revenue collection from parking
- Accessibility of the Parking lots.

6.4.3 Risk trade-off

The operations and maintenance activities and capital projects that cannot be undertaken may sustain or create risk consequences. These risk consequences include:

- Meet the demand of the parking at the desired LOS
- Impact on the daily users due to limited availability of parking
- Unable to meet legislative requirements
- Unable to meet minimum maintenance standards

These actions and expenditures are considered and included in the forecast costs, and where developed, the Risk Management Plan.

7.0 Climate Change Adaptation

The impacts of climate change will have significant impact on parking assets and the services Chatham-Kent provide. In the context of the asset management planning process climate change can be considered as both a future demand and a risk. How climate change impacts on assets will vary depending on the location and the type of services provided, as will the way in which the airport responds to and manages those impacts. As a minimum, the airport will consider how to manage its existing assets given potential climate change impacts for the region. The impacts of climate change may have a significant impact on the assets Chatham-Kent manage and the services they provide. This can include-

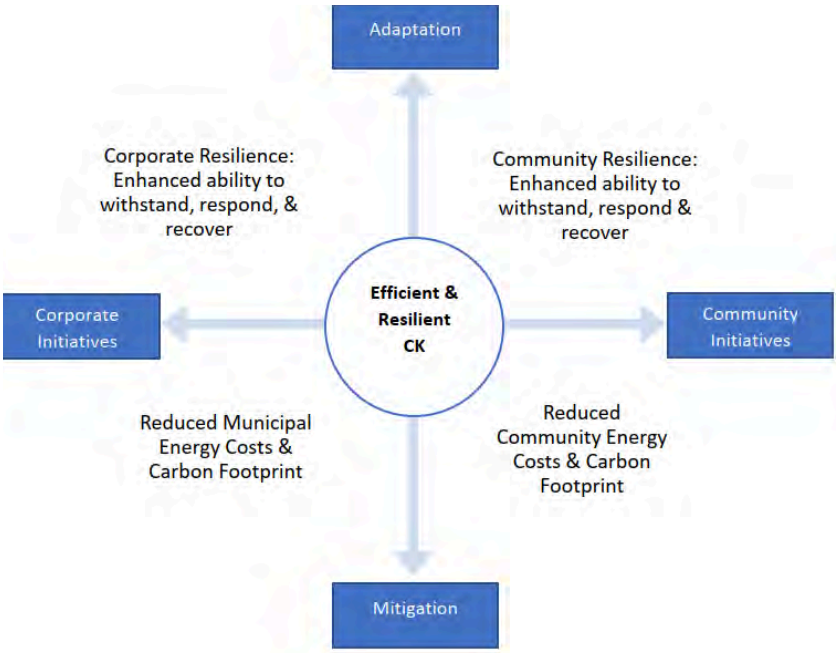
- Impacting Asset Lifecycle Costs
- Affect the level of service that can be provided
- Increase demand for services
- Impact Risks involved with delivering services

In the context of the Asset Management Planning process climate change can be considered as both a future demand and a risk.

Parking lot damage due to Flooding

Recognizing these continuing climate change impacts, Council declared a climate emergency in Chatham-Kent on July 15, 2019, and directed municipal staff to develop a climate change action plan (CCAP) to reduce CK's contribution to climate change (known as climate mitigation) and to enhance the community's resiliency to climate change (known as climate adaptation).

The Municipality of Chatham-Kent is currently in the process of completing its CCAP, which will be presented to Council and the public by the end of 2024. The CCAP actions that will be presented in the CCAP report document will be used to inform the Climate Section of the DAMPs in 2025. The CCAP actions will also be presented within the departments that will be responsible for their completion.



Based on the Climate Atlas of Canada, historical climate patterns show that CK's climate has become hotter, wetter and wilder over the last 6 decades and this trend is expected to continue in the future.

Hotter: Average annual temperatures have risen by 0.5°C and are expected to rise between 3.5°c and 5.8°c by the 2080s.

Wetter: Average annual precipitation has increased by 49.8mm (1.96in) and is expected to increase between 78mm and 127mm (5in) by the 2080s.

Wilder: Rain storms have increased in frequency and severity and seasonal precipitation patterns have change and this is expected to continue.

"From 1983 to 2008, insurers spent on average $400 million yearly on catastrophic claims; since 2009, the yearly average has risen to almost $2 billion. These "once in 100 years" events are happening more frequently and are becoming more severe and more costly."(Statistics Canada, 2024)

Risk and opportunities identified to date are shown in **Table 7.0.1**

Table 7.0.1 Managing the Impact of Climate Change on Assets and Services

Climate Impact (Assets level or Service level)	Projected Position (in 10 years)	Potential Impact on Assets & Services	Climate Management Plan
Precipitation patterns	7.9 Average days where precipitation exceeds 20mm (Source: Historical & Future Climate Analysis for Chatham-Kent document.)	Flooding in Parking lots near the Thames River resulting in lot closures & compromising the pavement and subgrades	Address flooding concerns, river slope stability. Inspection and maintenance program for lots after these flooding events. Move key infrastructure (Pay and display machine) to higher elevation
Extreme Heat - parking lot Pavements	35.5 Average days where temperature exceeds 30 degrees (Source: Historical & Future Climate Analysis for Chatham-Kent document.)	Faster deterioration of pavement resulting in reduced service life	Develop preventative maintenance schedule to extend service life. Prioritize in budget for full replacements if service lives are shortened. Increase tree cover in lots, solar installations to provide shaded areas
Ice Storms - parking lots	Frequency of extreme weather events is likely to increase	Increased storm events and freeze/thaw events leading to hazardous pavement, pathways, and sidewalk conditions. Increased Liability	Review salting and winter maintenance practices, alternatives and applications. Lots with low winter utilization could be closed for the season
Ice Storms - Parking Lots	Frequency of extreme weather events is likely to increase	Increased storm events and freeze/thaw events leading to hazardous pavement, pathways, and sidewalk conditions. Increased Liability	Review salting and winter maintenance practices, alternatives and applications. Lots with low winter utilization could be closed for the season

Climate Impact (Assets level or Service level)	Projected Position (in 10 years)	Potential Impact on Assets & Services	Climate Management Plan
Extreme Rain Events - Parking Lots	26.6 Average days where precipitation exceeds 10mm (Source: Historical and Future Climate Analysis for Chatham-Kent document.)	Increased storm events leading to flooding, possibly parking lot closure	Identify the areas with risk of flooding history and address the storm water issues to mitigate flooding concerns when reconstructing parking lots
Extreme weather events - Parking Payment Systems & Lighting	Frequency of extreme weather events is likely to increase	Increased storm events leading to temporary incapacitation of parking fee collection	Pay and display machines use cellular communication - typically more resilient than wired communication. Solar pay and display machines are used where possible, but sunlight conditions in lots sometimes require mains-powered machines. Investigate mobile app-based payment systems to provide additional resiliency (along with other benefits)

Additionally, the way in which Chatham-Kent construct new assets should recognize that there is opportunity to build in resilience to climate change impacts. Building resilience can have the following benefits:

- Assets will withstand the impacts of climate change.
- Services can be sustained; and
- Assets that can endure may potentially lower the lifecycle cost and reduce their carbon footprint.

The impact of climate change on assets is a new and complex discussion and further opportunities will be developed in future revisions of this DAMP.

Table 7.0.2 summarizes some asset climate change resilience opportunities.

Table 7.0.2 Building Asset Resilience to Climate Change

New Asset Description	Climate Change Impact these assets?	Build Resilience in New Works
Parking lots	Flooding damage	Preventive maintenance program for flooding impacts
Pay machine	Flooding damage	To be constructed at higher elevation
EV Charging stations	Flooding damage	Inspection and preventive maintenance program for each site

8.0 FINANCIAL SUMMARY

This section contains the financial requirements resulting from the information presented in the previous sections of this DAMP. The financial projections will be improved as the discussion on desired levels of service and asset performance matures.

8.1 Financial Sustainability and Projections

8.1.1 Sustainability of service delivery

There are two key indicators of sustainable service delivery that are considered in the DAMP for this service area. The two indicators are the:

- **Asset Renewal Funding Ratio** (proposed renewal budget for the next 10 years / proposed renewal outlays for the next 10 years shown in the DAMP), and
- **Lifecycle Funding Ratio** (proposed lifecycle budget for the next 10 years / proposed lifecycle outlays for the next 10 years shown in the DAMP).

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio [1] **31%**

The Asset Renewal Funding Ratio is an important indicator and illustrates that over the next 10 years Chatham-Kent expect to have **31%** of the funds required for the optimal renewal of assets. Chatham-Kent has no major renewals planned within the current planning period for parking. As the parking asset information improves and as time passes there will be future renewal requirements that will be required.

As the DAMP evolves the planning period will extend to 20 years and at that time there may be significant renewal items identified. The forecast renewal works along with the proposed renewal budget, and the cumulative shortfall where one exists, is illustrated in Section 3.

[1] AIFMM, 2015, Version 1.0, Financial Sustainability Indicator 3, Sec 2.6, p 9.

Lifecycle Funding Ratio – 10 year financial planning period
This DAMP identifies the forecast operations, maintenance and renewal costs required to provide an agreed, and affordable level of service to the community over a 10 year period. This provides input into 10 year financial and funding plans aimed at providing the required services in a sustainable manner.
This forecast work can be compared to the proposed budget over the first 10 years of the planning period to identify any funding shortfall.
The forecast operations, maintenance and renewal costs over the 10 year planning period is **$618,140** on average per year.

The proposed (budget) operations, maintenance and renewal funding is **$477,567** on average per year giving a 10 year funding shortfall of -**$241,453**per year. This indicates that **66%** of the forecast costs needed to provide the services documented in this DAMP are accommodated in the proposed budget. Note, these calculations exclude acquired assets.

Providing sustainable services from the parking infrastructure requires the management of service levels, risks, forecast outlays and financing to achieve a financial indicator of approximately 1.0 for the first years of the DAMP and ideally over the 10 year life of the LTFP.

8.2 Forecast Costs (outlays) for the LTFP

Table 8.2.1 shows the forecast costs (outlays) required for consideration in the 10-year LTFP.

Providing services in a financially sustainable manner requires a balance between the forecast outlays required to deliver the agreed service levels with the planned budget allocations in the LTFP.

A gap between the forecast outlays and the amounts allocated in the financial plan indicates further work is required on reviewing service levels in the DAMP and/or financial projections in the LTFP.

Chatham-Kent parking will manage any 'gap' by developing this DAMP to provide guidance on future service levels and resources required to provide these services in consultation with the community.

Year	Acquisition	Operation	Maintenance	Renewal	Disposal
2024	0	260,807	116,760	192,619	0
2025	0	260,807	116,760	147,923	0
2026	0	260,807	116,760	528,353	0
2027	0	260,807	116,760	487,372	0
2028	0	266,023	119,095	288,072	0
2029	0	271,344	121,477	277,908	0
2030	0	276,770	123,907	228,748	0
2031	0	282,306	126,385	312,628	0
2032	0	287,952	128,912	571,761	0
2033	0	293,711	131,491	215,170	0

Table 8.2.1: Forecast Costs (outlays) for the Long-Term Financial Plan

8.3 Funding Strategy

The proposed funding for assets is outlined in the operational budget and 10-year capital budget. These operational and capital budgets determine how funding will be provided, whereas the Asset Management Plan typically communicates how and when this will be spent, along with the service and risk consequences. Future iterations of the DAMP will provide more detailed service delivery options and alternatives to optimize limited financial resources.

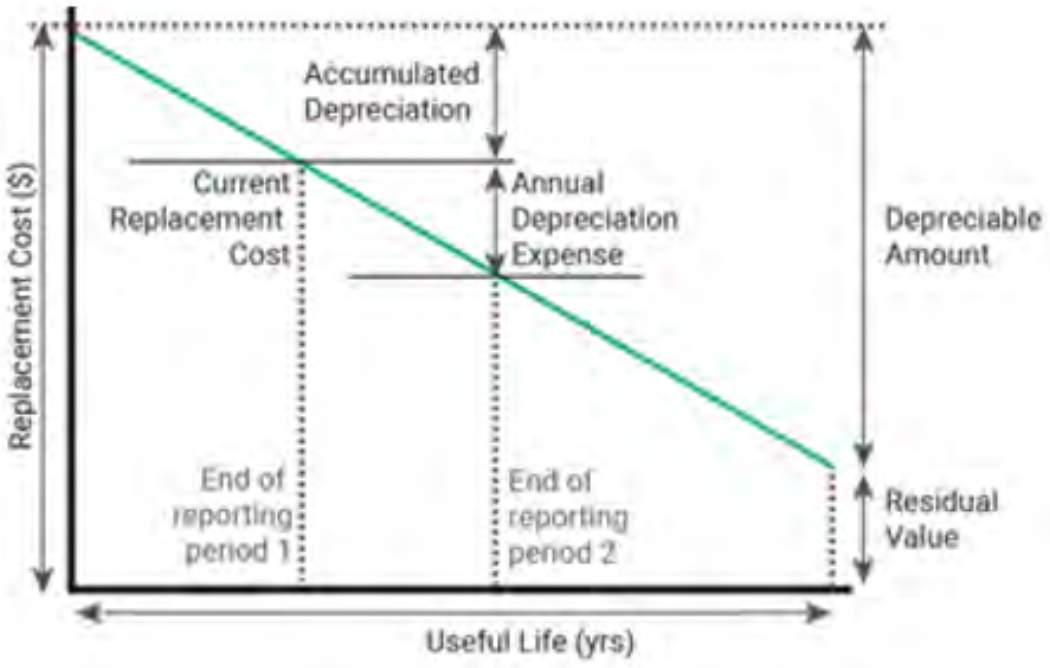
8.4 Valuation Forecasts

Asset values are forecast to increase as additional assets are added into service. As projections improve and can be validated with market pricing the net valuations will increase significantly. Additional assets will add to the operations and maintenance needs in the longer term. Additional assets will also require additional costs for future renewals.

Any additional assets will also add to future depreciation forecasts. Any disposals of assets would decrease the operations and maintenance needs in the longer term and would remove the high costs renewal obligations. At this time, it is not possible to separate the disposal costs from the renewal or maintenance costs however this will be improved for the next iteration of the plan.

8.4.1 Asset valuations

The best available estimate of the value of assets included in this DAMP are shown below.



The assets are valued utilizing Current Replacement Cost Market Prices Index:

Assets Valuation	Financial Value
Replacement Cost (Gross)	**$9,297,450**
Depreciable Amount	**$9,297,450**
Current Replacement Cost	**$3,833,417**
Annual Depreciation Expense	**$487,295**

8.5 Key Assumptions Made in Financial Forecasts

In compiling this DAMP, it was necessary to make some assumptions. This section details the key assumptions made in the development of this DAMP and should provide readers with an understanding of the level of confidence in the data behind the financial forecasts.

Key assumptions made in this DAMP are:

- Budgets have been allocated based on the best available data on assets.
- Only off-street parking lots are reported for the Parking DAMP, on-street parking will be included in the Roads DAMP.
- Omission of disposal assets during this budget period, small projects will have minor impact on disposal projections.
- Assumptions were made regarding existing and planned budget for maintenance, and operations and only increased in the forecast

Renewal forecasts have been made by professional judgement.

8.6 Forecast Reliability and Confidence

The forecast costs, proposed budgets, and valuation projections in this DAMP are based on the best available data. For effective asset and financial management, it is critical that the information is current and accurate. Data confidence is classified on A - E level scale in accordance with **Table 8.6.1.**

Table 8.6.1: Data Confidence Grading System

Confidence Grade	Description
A. Very High	Data based on sound records, procedures, investigations and analysis, documented properly and agreed as the best method of assessment. Dataset is complete and estimated to be accurate ± 2%
B. High	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate ± 10%
C. Medium	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated ± 25%
D. Low	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete, and most data is estimated or extrapolated. Accuracy ± 40%
E. Very Low	None or very little data held.

The estimated confidence level for and reliability of data used in this DAMP is shown in **Table 8.6.2.**

Data	Confidence Assessment	Comment
Demand drivers	B	Population is growing and expected to continue
Growth projections	C	Demographics are expected to grow
Acquisition forecast	C	From Long term budget
Operation forecast	C	From Long term budget
Maintenance forecast	C	From Long term budget
Renewal forecast - Asset value	B	Professional Judgement
Asset useful lives	C	Professional Judgement
Condition modeling	N/A	Professional Judgement
Disposal forecast	N/A	Based on available data

Table 8.6.2: Data Confidence Assessment for Data used in DAMP

The estimated confidence level for and reliability of data used in this DAMP is considered to be **Low Confidence** Level.

9.0 PLAN IMPROVEMENT AND MONITORING

Status of Asset Management Practices

ISO 55000 Refers to this as the Asset Management System

9.1 Accounting and financial data source

This DAMP utilizes accounting and financial data. The source of the data are;

- Chatham-Kent 2024 - 2027 Multi-Year Budget (Capital & Operating)
- Internal Market Price Valuations
- IPWEA AM Software Multi-Year Forecasting Models
- Council Reports
- Tender Documents

9.2 Asset management data sources

This DAMP also utilizes asset management data. The sources of the data are;

- Asset Registers
- Insurance Data
- Tangible Capital Asset Data
- Fleet Vehicle Data
- Inspection Logs
- Subject Matter Expert Knowledge and Anecdotal Information

9.3 Continuous Improvement Plan

It is important that Chatham-Kent recognizes areas within the DAMP and within its planning processes that require future improvements to ensure effective asset management and informed decision making. The tasks listed below are essential to improving the DAMP and Chatham-Kent's ability to make evidence based and informed decisions. These improvements span from improved lifecycle activities, improved financial planning, and plans to physically improve the assets.

The Improvement Plan, **Table 9.2**, highlights proposed improvement items that will require further discussion and analysis to determine feasibility, resource requirements and alignment to current workplans. Future iterations of this DAMP will provide updates on these improvement plans. The costs and resources to complete each of these tasks has not been included in the lifecycle models to data, and resource requirements would need to be reviewed for internal resource driven projects.

The improvement plan generated from this DAMP is shown in **Table 9.3.1**.

Task	Task	Responsibility	Resources Required	Timeline
1	Parking Use Surveys in Downtown lots	IES, A&QM	Summer Student Work 100 FTE HRS	2024
2	"public engagement survey to ensure customer satisfaction and parking are meeting expected level of service"	IES, CUST	15 FTE hrs	2024
3	Create an up to date inventory showing the condition of all parking lots. (Methodology - Canadian National Infrastructure Report Card Five Point Rating Scale). Routine Inspection schedule	IES, A&QM	100 FTE hrs	2024-25
4	Investigate ways (technology) to simplify parking payments (digital or card payment option). PCI DSS (Payment Card Industry Data Security Standard) - must comply to this standard for payment processing from any major card company	IES	Mobility master plan, 80 FTE HRS	2025
5	Review asset registry to improve Provincial Asset Retirement Obligation reporting	IES, A&QM	20 hrs of staff completed	2025-27
6	preventive maintenance strategy to extend life of existing lots	Public Works, IES, A&QM	60 FTE hrs	2026

Table 9.3.1: Improvement Plan

9.4 Monitoring and Review Procedures

This DAMP will be reviewed during the annual budget planning process and revised to show any material changes in service levels, risks, forecast costs and proposed budgets as a result of budget decisions.

The DAMP will be reviewed and updated annually to ensure it represents the current service level, asset values, forecast operations, maintenance, renewals, acquisition and asset disposal costs and planned budgets. These forecast costs and proposed budget are incorporated into the LTFP or will be incorporated into the LTFP once completed.

The DAMP has a maximum life of 1 year and will be updated annually. This plan will receive a complete revision and update in 2027 to enable the Chatham Kent parking to be prepared for the 2028 four-year budget process.

9.5 Performance Measures

The effectiveness of this DAMP can be measured in the following ways:

- The degree to which the required forecast costs identified in this DAMP are incorporated into the LTFP,
- The degree to which the 1-5 year detailed works programs, budgets, business plans and corporate structures consider the 'global' works program trends provided by the DAMP,
- The degree to which the existing and projected service levels and service consequences, risks and residual risks are incorporated into the Strategic Planning documents and associated plans,
- The Asset Renewal Funding Ratio achieving the Organizational target (this target is often 90 – 100%).

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- Municipality of Chatham-Kent Council Strategic Plan 2022-2026
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Document Control

Rev No	Date	Revision Details	Author	Reviewer	Approver
1	August 2024	1st Detailed Asset Management Plan	SC	Director, Engineering	Chatham-Kent Council

For more information, email
To view all the asset management plans, visit
www.chatham-kent.ca/assetplans