

Standard Terms of Reference
for Parking Studies

City of Ottawa

INTRODUCTION

Local Area Parking Studies (LAPS) and Parking Assessments (hereafter referred to as **Assessments**) are conducted to review parking conditions within specific geographic areas. Both types of studies involve collecting parking data and developing recommendations based on data analysis and consultation with stakeholders.

LAPS are typically conducted across an entire commercial area, including adjacent areas that are potentially affected by parking demand generated by the commercial area. The LAPS process involves collecting and analyzing relevant background data, reviewing historical trends, performing detailed analysis of site-specific issues within the study area as required, and places an emphasis on consultation.

A **LAPS** should be undertaken in an area based on the following criteria:

- Stakeholders are actively asking that the City find a solution to a **broader parking management-related issue** and are willing to participate in the study.
- Peak on-street utilization in the area is known or believed to be greater than 85% (practical capacity)
- The City is ready to undertake the study (funding, resources, corporate priorities)
- An area where a LAPS has previously been completed, but has undergone significant change / development, or several years have passed since the completion of the previous LAPS, warranting an update

When practical, LAPS may be conducted in coordination with Community Design Plans, Transportation Studies and their supporting studies.

Assessments are generally conducted across smaller geographic areas (e.g. 2-3 blocks) and focus primarily on the data collection and analysis process. Assessments may also be used to study single events that occur over a short time period (e.g. a CFL football game, music concert). Recommendations are developed in consultation with stakeholders.

An **Assessment** should be undertaken based on the following criteria:

- Stakeholders are actively asking that the City find a solution to a **specific or localized parking management-related issue**.
- Peak on-street utilization in the area is known or believed to be greater than 85% (practical capacity)
- The City is ready to undertake the study (funding, resources, corporate priorities)

STAKEHOLDER ENGAGEMENT

Effective engagement of stakeholders is a critical component in the successful implementation of a results oriented LAPS or Assessment.

Early discussions amongst stakeholders can lead to the creation of a process that is tailored to meet the specific needs of the situation. This is an important step in proper identification of issues and helps to prioritize and arrive at effective resolutions.

Stakeholder Engagement – Local Area Parking Studies

At a minimum, the following stakeholders should be consulted as part of the LAPS process.

- External (may involve multiples from each group if study area overlaps Ward / BIA / Community Association boundaries):
 - Ward Councillor
 - A local BIA or business community representative
 - A Community Association representative
- Internal
 - Planning staff (possibly more than one person)
 - Parking Operations staff
 - Traffic staff
 - Finance staff (if recommendations are anticipated to have financial implications)
 - Parking Enforcement staff

Additional stakeholders within the study area may also be consulted depending on the nature of the issues identified or recommendations made. Additional stakeholders could include representatives of places of worship, major property owners / developers, universities / colleges, Ottawa Tourism or other appropriate tourism organization, other levels of government, other internal City of Ottawa departments, etc.

An initial consultation meeting should be held near the beginning of the study to outline the process and obtain advice regarding local area parking issues. The local area Councillor should be consulted at the beginning of the study process.

At least one interim stakeholder meeting should be conducted to outline study progress prior to developing a recommended plan. The interim meeting should outline the existing situation, identify specific parking challenges and opportunities, and outline next steps.

A final stakeholder meeting should be conducted to present a recommended parking plan and obtain feedback.

Stakeholder Engagement – Assessments

An initial discussion should be held near the beginning of the study to clarify the specific or localized parking management-related issue to be resolved. This discussion would typically occur with the stakeholder that has identified the issue (if applicable).

A second follow-up discussion should be held with the same stakeholder following the data collection and analysis process to communicate findings and discuss potential recommendations.

If recommendations include changes to paid parking days, hours, or locations, additional stakeholders should be consulted from the list of stakeholders identified in the LAPS Stakeholder Engagement section.

LOCAL AREA PARKING STUDIES – KEY COMPONENTS

Study Area

The study area boundaries of a LAPS should encompass an entire commercial area including any adjacent areas that are affected by parking demand generated by the commercial area. For example, a LAPS area boundary would likely extend beyond the formal boundaries of an established BIA / commercial area so that parking activity generated by businesses in the broader area is studied and reviewed.

Significant parking generators such as office buildings, hospitals, universities, shopping malls, places of worship, or sports stadiums in proximity to the study area should also be considered or included in the study because they may have an effect on parking within the local area.

The exact boundary should be established based upon a reasonable degree of familiarity of the area and may involve consultation with local stakeholders, including BIA representatives, where they exist.

Background

- Prior Studies
 - Any previous parking studies, including LAPS, Assessments, turnover studies, transportation studies, etc, for the LAPS study area should be reviewed and summarized.
- Official Plan
 - The study area should be reviewed in the context of the City's Official Plan to identify the current and future planning context for the area. Any site specific policies applicable to the study area should also be reviewed and summarized.
- Land Use Information

- The existing land uses within the established study area should be reviewed by referencing the City's Zoning By-law. Land uses should be broken down by commercial, institutional, and residential, and displayed visually on a map. This should include reviewing and summarizing the Zoning By-law's parking requirements for the study area.
- Community Design Plans (CDPs)
 - Any CDPs applicable to the study area should be reviewed to identify the current and future planning context for the area.
- Developments (Recent / Pending / Current / Future)
 - All known zoning amendments and development applications relevant to parking within the study area should be summarized, and the total number of required and proposed parking spaces totaled, to identify trends and potential future issues.
- Transportation Plans
 - Review the Transportation Master Plan, Cycling Plan, Pedestrian Plan, LRT plans, multi-use pathway plans, or other relevant transportation plans to identify the current and future transportation planning context for the area.
- Residential Parking Permit Zones
 - If applicable, identify any Residential Parking Permit zones located within or adjacent to the study area.

Parking Inventory – On-Street

The entire on-street parking inventory, both paid and unpaid, within the study area should be identified in terms of location, quantity, and type (paid or unpaid). The location should be recorded by blockface. The following on-street inventory data should be collected:

- Number of paid on-street parking spaces. For each space / group of spaces, record:
 - Paid hours of operation
 - Max duration and hours in effect
- Number of unpaid on-street parking spaces. For each space / group of spaces, record:
 - Max duration and hours in effect

Parking Inventory – Off-Street

The entire off-street parking inventory, both public and privately owned, within the study area should be identified in terms of location, quantity, and type. The location should be recorded using the legal civic address of the facility and any common name of the facility or building it serves (e.g. 110 Laurier Ave W, City Hall parking garage).

The following off-street inventory data should be collected:

- Number of municipal parking lots and garages. For each facility, record:
 - Number of hourly/daily spaces
 - Number of spaces reserved for monthly pass holders
- Number of public off-street parking lots and garages. For each facility, record:
 - Number of hourly/daily spaces
 - Number of spaces reserved for monthly pass holders
 - Number of other parking spaces including car-share spaces, electric vehicle charging spaces, bike parking spaces
- Number of commercial customer/employee (private) off-street parking lots and garages. For each facility, record:
 - Number of hourly/daily spaces (if indicated)
 - Number of monthly spaces (if indicated)
- Number of office/institutional (private) off-street parking lots and garages. For each facility, record:
 - Number of hourly/daily spaces (if indicated)
 - Number of monthly spaces (if indicated)
- Number of residential (private) off-street parking lots and garages. For each facility, record:
 - Number of resident spaces
 - Number of visitor spaces

Any sharing arrangements that are identified should also be documented. For example, some large apartment operators rent out their parking spaces for commercial purposes during the day.

Other On-street Regulations

- Review other on-street parking regulations in the study area, including when the regulations are in effect, including:
 - No Parking zones
 - No Stopping zones
 - Bus stop zones
 - Tour Bus parking and loading zones
 - Taxi zones
 - Flex spaces
 - Other designated curbside uses
- Identify any Residential Parking Permit areas

Bicycle Parking

An inventory of all bicycle parking facilities located within the public right-of-way should be performed as part of the inventory collection. These include:

- Ring and post bicycle racks
- On-street bicycle corrals
- Multi-bike racks

Additionally, public bicycle parking located on commercial private property (e.g. shopping malls, privately owned plazas outside commercial buildings, etc.) should also be counted and identified as privately owned, public bicycle parking. Residential bicycle parking (e.g. bicycle parking located in condominiums and apartments) or any other bicycle parking intended for use by specific users does not need to be included.

Parking Utilization Surveys

Parking surveys should be conducted at a time of year where parking usage is estimated to be representative of typical conditions. As such, utilization data should not be collected on holidays or during special events (e.g. music festivals, large sporting events, street festivals, etc). The timing of the surveys should be determined in with community stakeholders.

Utilization surveys may be carried out on any day of the week, but consideration should be made for days that will be most representative of typical parking activity in the area. These are often Tuesdays, Wednesdays, and Thursdays for weekdays, and both Saturday and Sunday to capture weekend data.

Utilization surveys may be conducted at any time of day, but should be concentrated during the core hours of activity of the study area. In areas where evening activity is significant, evening utilization data collection should also be collected. Utilization survey routes should be planned so that occupancy is recorded three to four times during the identified survey times. For example, surveys could be conducted at 10 am (morning), noon (midday), 2 pm (afternoon), and 6:30 pm (evening).

Turnover Surveys

At minimum, turnover data should be collected within key sub-areas of the study area. These could include main commercial streets, areas identified by stakeholders as requiring further analysis, or areas identified as part of the utilization surveys as requiring further analysis. Turnover surveys should be conducted by recording the last 4 digits of license plate numbers which can then be used to determine duration of stay and parking volume over the course of the day.

Turnover studies should be conducted so that they include the core hours of activity of the identified key sub-areas. Turnover survey routes should be planned so that turnover can be recorded over the course of a 12-hour period at 30 minute intervals. As such, turnover survey routes will typically be shorter than utilization survey routes. The higher frequency of turnover survey data collection when compared to utilization surveys is required to determine accurate

duration information. However, turnover surveys also provide additional utilization data (in greater detail) to supplement the collected utilization survey data.

Enforcement Data

Parking ticket data should be reviewed and summarized within key sub-areas of the study area. These could include main commercial streets, areas identified by stakeholders as requiring further analysis, or areas identified as part of the utilization and turnover surveys as requiring further analysis. The review should include a review of enforcement levels via frequency of ticket issuance, so that potential parking issues and trends may be identified.

Other Data

Review data from other sources if applicable, available or relevant, including traffic volume data, transit usage, cycling usage data, residential parking permit usage, etc.

Utilization and Turnover Survey Results

Parking utilization data should be summarized in tabular and graph format by time period throughout the day in order to illustrate the pattern of demand, including the peak periods. Where turnover data is collected by license plate, this information should be illustrated by parking type – short-term versus long-term, also accounting for the local time limits.

Existing demand/supply ratios for each parking facility location and type, including a block face breakdown for on-street municipal parking should be calculated. This information is developed in order to determine demand patterns, including areas with excess demand and areas with surplus parking available. Utilization ratios should be calculated for subareas (e.g. by block) where appropriate.

Maps showing the inventory information and occupancy data should be developed. The format and quantity of maps to be produced may vary, but should include the following:

- Clearly identify the date and time of the survey
- Depict the different levels of occupancy by colour (e.g. 0-50% = green; 51-85% = yellow; greater than 85% = red)
- Identify where parking was either restricted or had been taken out of service at the time of the study

Public Surveys

Public surveys are recommended as an additional point of consultation while also providing additional information regarding parking behaviours and perceptions in the study area. These are typically conducted by intercepting people at street-level at different locations in the study area.

Questions for everyone may include the following:

- What was your mode of travel?
- What is the purpose of your trip?
- How long do you expect to stay in the area?
- Do you feel that the time limits are long enough for your visit?
- How often do you come to this area?
- How much did you / will you spend during this visit?
- What are your concerns when travelling to this area?

Questions specifically for those who drove should include the following:

- When you park here, how easy is it for you to find a parking space?
- What kind of parking did you use? (on-street paid or unpaid, parking lot, parking garage)
- Why did you choose to park where you did?
- How long did it take you to find a parking space?
- What is the first three digits of your postal code? (in order to determine where the driver is from)

People may also be asked for the first three digits of their postal code in order to determine location.

PARKING ASSESSMENTS – KEY COMPONENTS

Study Area

The study area boundaries of an Assessment should encompass an area sufficient to gather enough data to sufficiently address the specific or localized parking management-related issue to be resolved. For example, 2-3 city blocks of a particular area.

Background

A comprehensive review of background information is not required. However, land use information, zoning considerations, future developments, the existence of Residential Parking Permit zones, etc. that are relevant to the issue to be resolved should be reviewed and summarized.

Parking Inventory

Same as LAPS. Refer to the Parking Inventory section of the LAPS Key Components.

Other On-Street Regulations

Same as LAPS. Refer to the Other On-Street Regulations section of the LAPS Key Components.

Bicycle Parking

Unless the specific issue to be resolved is related to bicycle parking, bicycle parking data does not need to be collected.

Parking Utilization Surveys / Turnover Surveys

Since an Assessment area is limited, utilization and turnover data should be collected for the entirety of the Assessment area. Utilization and turnover surveys should be conducted by the same method identified in the corresponding section of the LAPS Key Components.

Enforcement Data

Same as LAPS. Refer to the Enforcement Data section of the LAPS Key Components.

Utilization and Turnover Survey Results

Same as LAPS, except that the same mapping requirements do not necessarily apply. Refer to the Utilization and Turnover Survey Results section of the LAPS Key Components.

Public Surveys

Not required, but could be conducted if deemed applicable to the specific issue to be resolved.

ISSUE IDENTIFICATION AND RECOMMENDATIONS

Information derived through data / information collection should be analyzed to identify challenges and opportunities within the context of the Municipal Parking Management Strategy.

The Parking Management Toolbox

Consistent with the principle and objectives of the Municipal Parking Management Strategy, the following set of strategies makes up the 'Parking Management Toolbox' for the City of Ottawa's Municipal Parking Management Program. They serve as a reference point when seeking to resolve parking-related issues and develop recommendations.

- 1) **Measures to influence parking demand** – One important way to reduce parking pressure is to reduce the number of cars competing for spaces. These tools help in promoting walking, transit, and alternative modes of transportation.
 - 1) Bicycle Parking
 - 2) Transit Service

- 3) Measures to Reduce Employee Parking Demand
- 4) Car-sharing / Car-pooling Promotion
- 2) **Measures to influence parking supply** – The number of publicly available parking spaces in an area defines how much ‘supply’ is available for those seeking parking. These tools can help to adjust this supply in order to respond to varying levels of demand.
 - 5) Municipal Off-Street Supply
 - 6) Curb-Side “Street” Parking Supply
 - 7) Agreements with Developers
 - 8) Zoning Provision Adjustments
- 3) **Measures to influence the availability of parking** – Where there is high demand for parking, there are measures that can be implemented to improve rates of turnover to ensure more spaces are free when needed. In addition to encouraging turnover, there are also tools to make available spaces more apparent.
 - 9) Curb-Side Parking Regulations
 - 10) Enforcement Levels
 - 11) Parking Price Adjustments / Introduce Paid Parking
 - 12) Off-Street Parking Visibility / Promotion

Recommendations

Using the strategies as listed in the Parking Management Toolbox, recommendations for each of the identified issues should be developed. Stakeholders should be consulted prior to finalizing the recommendations.

FINAL REPORTING

Local Area Parking Studies

Once recommendations have been developed based on the data collection, analysis, issue identification, and stakeholder engagement process, a final report to Committee and Council should be prepared. The report should summarize the study process and findings, including identified issues, solutions, and recommendations. Formal Committee and Council recommendations must be developed for any study recommendations that require Committee and Council approval to implement.

Assessments

A report to Committee and Council is not required unless the results of the Assessment lead to recommendations that require Committee and Council approval to implement.

Instead, a technical report summarizing the study process and findings, including identified issues, solutions, and recommendations should be prepared. The report may be shared with key stakeholders.