

Place Index

Chapel St

Measuring patterns of activity, place magnetism, and dwell times.



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This document has been prepared as a technical note for the City of Stonnington for internal usage and for subject matter experts involved in Chapel St Redevelopment project for council.



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1.0 Project Context



Project Context

Chapel St is the Metropolitan Centre of the City of Stonnington, and one of Melbourne's most iconic shopping districts.

To help guide development and provide council with necessary metrics track change over time, Place Intelligence was engaged to develop as series of location based studies and data driven metrics to enhance community centric planning, urban design, and transport strategies across the Chapel St Precinct.

Report **Objectives**

This report provides a summary of a multi-year remote sensing audit on place use and utilization for the Chapel St redevelopment area.

Report metrics include a number variables including:

- Daytime Demand Profiles
- Visitor Points of Origin (Place Magnetism)
- Nighttime Demand
- Visitor Segmentation
- Precinct Profiles
- Dwell Times

Each variable study is intended to provide a unique insight into how people use the spaces within the study area. Insights are provided to translate data into actionable intelligence and to describe findings relative to best practice urban and place making strategies.



Place Intelligence - GeoData Studio

Interactive Data Dashboard - Place Intelligence GeoData Studio

As part of this project council was granted access to the PI GeoData Studio. The studio provides interactive geo-data as spatial maps and associated data charts.

The following data layers have been unlocked in the GeoData Studio

Category	Indicators	Indicator Summary			
			Data Files	Time	App I
Activity Index	Footfall	This indicator refers to the number of pedestrians walking and strolling in an area regardless of their reasons for doing so. Footfall is often a measure of an areas attractiveness and its	Precinct Activity	2019-2021	
·		ability to satisfy customer and visitor needs. A higher footfall generally indicates an areas	Sub Zone Activity	2019-2021	
		ability to attract community participation.	Road Activity	2019-2021	
			Parcel Activity	2019-2021	
			Car Parks Activity	2019-2021	
	Buildings, Roads	This indicator refers to the index of distinct place features within the study area. It provides	Audience Origins - Precinct	2019-2021	
	and Features	insights into when different locations are used and who the users are. It enables the creation	Audience Origins - Buildings	2019-2021	
	Analysis	of insights around the value of place typologies and their role in the context of the site.	Dwell Time	2019-2021	
Dwell Time Index	Dwell Time Spatial Distribution	This indicator reveals the locations across the study area where people spend different amounts of time. Geospatial maps are used to highlight places based on the number of people seen spending time orgainised into time ranges or bins between 1 and 30+ minutes			
	Dwell Time Statistical Distribution	This indicator monitors the total duration of time spent in each location as range of time bins. This information highlights the variances in places that are 'sticky' versus those that are used as a pass through location.	C → C ∧ https://hop.placeintelligent	ex.al(project/133/jactivity/2019	Status Youth
Arrivals, Origins and Catchments	Audience Origins	This indicator provides insights into the suburbs of origin for visitors to the study area based on ABS state suburbs. Knowledge of where different user groups live, provides the opportunity to align census level demographic and income data and to link origin data to footfall data. This in turn allows for a deeper understanding of who users are and how they use each location within the study area.	reals		
	Catchments	This indicator uses the spatial distribution of Audience Origins by suburb and the related distances that people must travel to reach the study area. Knowing how far people travel enables us to better plan for transport services and to understand destinations of choice.	10		

Data	Off line data
Yes	No
No	No
Yes	No
No	No
Yes	No





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Data Models, Methods and Calculations

Purpose

The purpose of this study was to develop a data model to discover spatial and time based use patterns of the Chapel Street precinct.

For this project, we assess a historic (pre-COVID) index of place usage from 2019 as well as 2020, 2021 and 2022 data to illustrate patterns of change as a result of the pandemic lock-down and rebound.

Place Intelligence is a specialist provider of mobile device, connected car and Internet of things (IOT) data streams, with a specific focus on mobility and place usage analytics in urban areas.

Data used in the model

Place Intelligence Metro Data is a proprietary and fully de-identified data set derived from a combination of primary source types. These include data obtained from Global System for Mobile Communications (GSM) Global Positioning System (GPS) enabled devices (included floating car data, handheld devices, wearables, other Location-aware technologies (LATs), Internet of Things (IOT) sensors and Low-power Wide-area Network devices (LPWAN). In aggregate the PI Metro Data sample represents between 30-40% of the Australia adult population, depending on coverage areas and population density. This means that results are statistically relevant and increasingly representative of patterns of place use and movement over long periods of time (eg 12 months or greater).

Calibration and control data are derived from Australian Bureau of Statistics, traffic control system (TCS) data, and high resolution population data published by Meta Labs. Proprietary GIS datasets were developed for the study, including telemetry derived historical movement network models from 2019 onwards as well as custom place of interest data sets linked to building polygons, VIC cadastre data and ABS land zone classifications.

Calculated Metrics

Each model class has its own metric framework. In general, the following models apply:

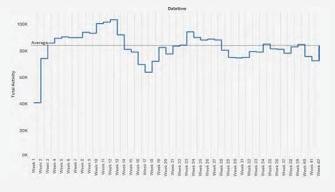
• Activity Measures - revealing time based usage patterns and levels are presented as a as percentage of total usage for each graph or as an index graph;

- In some instances a 'normalized activity value' is presented which is the modeled base value of time normalized activity at a per device per hour level.
- Dwell Time Measures revealing duration of rest • in any location and are presented as time spent in minutes.
- Catchments revealing where audiences come from ٠ are presented as a percent of total audience based on ABS Local Government Area boundary and State Suburb boundary. Catchment distances are expressed in meters distance from the study area.
- Connections and Flows- reveal the time based • journey patterns are expressed as a percent of total journeys between any location pairs. Journey distances are expressed in meters.

More about percentage based models

This study provides a high level index of patterns of place use and movement at a macro scale. Data in this document are presented via percentage values, indexing the percent demand for each analytical process against the total demand in the time series. In this way the total demand of 100% is broken into the component parts of the study. This study does not includes a regression (or data up-scaling) process to covert relative demand, into 1:1 user counts or vehicle counts.

Absolute value - the measure of exactly how many units of measurement are seen in the measurement period e.g. 50 cars per hour, or 100 persons per day. This is the most accurate method, but requires a high level of metric definitions (eg what to measure) and is computationally expensive to produce. Expanding sample sizes have a high margin of error when looking across long time periods and model error range and does not easily allow to cross measure different asset types (eg streets vs buildings).



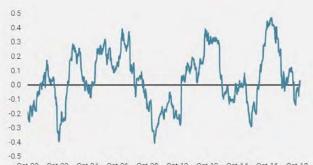
(Image and example of an absolute vale line chart)

Percentage value - the measure of how activity telematics variables including journey times, speed, distributes over the time period e.g. 50% of all traffic directionality, trip distances, trip start and end points. occurs between 2 pm and 5pm, or 80% of visitors are local. Percentage values require a high level of processing Additional data models were developed to disaggregate to create time normalized model results (eg year on populations into user groupings including international year continuous), but enable an easy means to measure visitors, interstate visitors, intrastate visitors and locals. different asset classes based on 'total activity' levels.



(Image and example of an percent of total line chart)

Index value - the measure of change against a reference value, which is a measure (ratio) that describes change in a nominal value relative to its value in the base value. The index point figure for each point in time tells what percentage a given value is at that point in time of its respective value at the base point in time.



Oct-00 Oct-02 Oct-04 Oct-06 Oct-08 Oct-10 Oct-12 Oct-14 Oct-16 Oct-18

(Image and example of an index value line chart)

Data Engineering and Data Science

Place Intelligence uses proprietary data processing tools and data engineering pipelines to build longitudinal telematics models and population estimation models.

This study leveraged Place Intelligence *Mercury data engineering pipelines and data processing algorithms for data cleaning, model validation, data management, time normalization, regression, user classifications, and

Place Intelligence uses an array of big data processing tools including:

- Machine Learning Processes
- Statistical Analysis
- Geospatial Analytics
- Data Visualization Tools
- Pattern Analysis Processes and Protocols
- Data De-duplication and Verification Methods

Data are processed using super-computer scale computational resources including Amazon Web Services, Google Cloud Computing and Microsoft Azure.

How is the data shared?

Data are shared as dynamic spatial files delivered via the Place Intelligence GeoData Studio, custom filtered CSV files and a select number of off-line licensed data files.

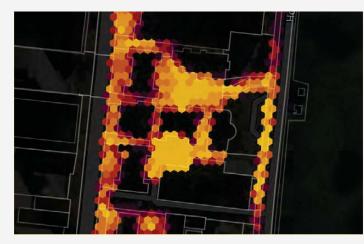
What has been computed

Models have been created for each data layer as defined in the project brief. Data are presented in two formats:

- Spatial Data: Pre-computed geospatial data for visualizing activity patterns in each layer class
- Statistical Data: Pre-computed time interval data for generating insights on each layer class.

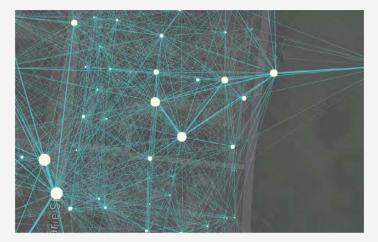


Report Data Representations



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Activity Heat Map

A spatial representation of the locations in the data model with the most and leased usage at any given moment in time. Cells in the model are rendered based on the total count of users seen, weighted based the movement distribution of each user across the cellular matrix in 1 hour intervals. Activity heat maps use quantile based colour grading, with 8 stops, where yellow is the highest and purple is the lowest. 3d extrusions are based on activity sums per cell.

Polygon Demand Map

A spatial representation of the locations in the data model with the most and leased usage at any given moment in time. Polygons in the model are rendered based on the total count of users seen, weighted based the movement distribution of each user across the cellular matrix in 1 hour intervals. Polygon heat maps use quantile based colour grading, with 8 stops, where yellow is the highest and purple is the lowest. 3d extrusions are based on activity sums per cell.

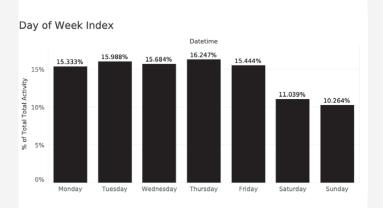
Dwell Time Map

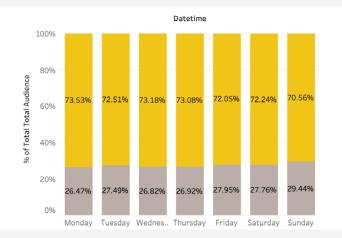
A spatial representation of the locations in the data model with the most and leased usage at any given time interval in the model. Cells in the model are rendered based on the total count of users seen, weighted based the movement distribution of each user across the cellular matrix in 1 hour intervals binned based on the duration of time spent in each cell. Dwell maps use jenks based colour grading, with 8 stops, where blue is the highest and purple is the lowest. 3d extrusions are based on activity sums per cell.

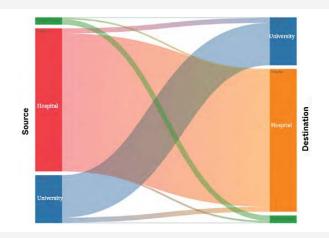
Connections Map

A spatial representation the hierarchy of movement between locations. Lines and start/end points are scaled based on the frequency of movement between each location. The thicker the line the greater the number of journeys that occur between the origin and destination pair versus all other movements in the model.

24 hour Day of Week Datetime 1.309% 1.350% 1.348% 1.264% 1.222% 1.222% 1.234% 1.00% 1.00% 1.00% 0.607% 0.627% 0.609% 0.907% 0.844% 0.907% 0.844% 0.907% 0.844% 0.565% 0.907% 0.844% 0.565% 0.907% 0.844% 0.566% 0.305% 0.907% 0.844% 0.565% 0.450% 0.368% 0.305% 0.305% 0.305% 0.305% 0.40% 0.412 0.40% 0.844% 0.368% 0.368% 0.388% 0.388% 0.282% 0.368% 0.388% 0.388% 0.282% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.388% 0.282% 0.388%
0.388% 0.388% 0.388% 0.







Percentage line chart

Line charts are used to express the average distributions of total activity between different data points to reveal what percent of total activity the data point represents in the model. Values in this chart type always add to 100% across all data in the series. In the chart left, colored lines represent weekdays plotted over a 24 hour period. Data points for weekdays and hours are isolated to show what percent of total activity occurs that this exact interval (eg 1.22% of all activity occurs at 8am on a Tuesday). Percentage charts show relative demand differences.

Percentage bar chart

Bar charts are used to express the average distributions of total activity between different data points to reveal what percent of total activity the data point represents in the model. Values in this chart type always add to 100% across all data in the series. In the chart left, bars heights represent the total demand in the are split by weekday. Data points for weekdays are isolated to show what percent of total activity occurs that this exact interval (eg 16.2% of all activity occurs on Thursdays). Percentage charts show relative demand differences across the model time range.

Stacked bar chart

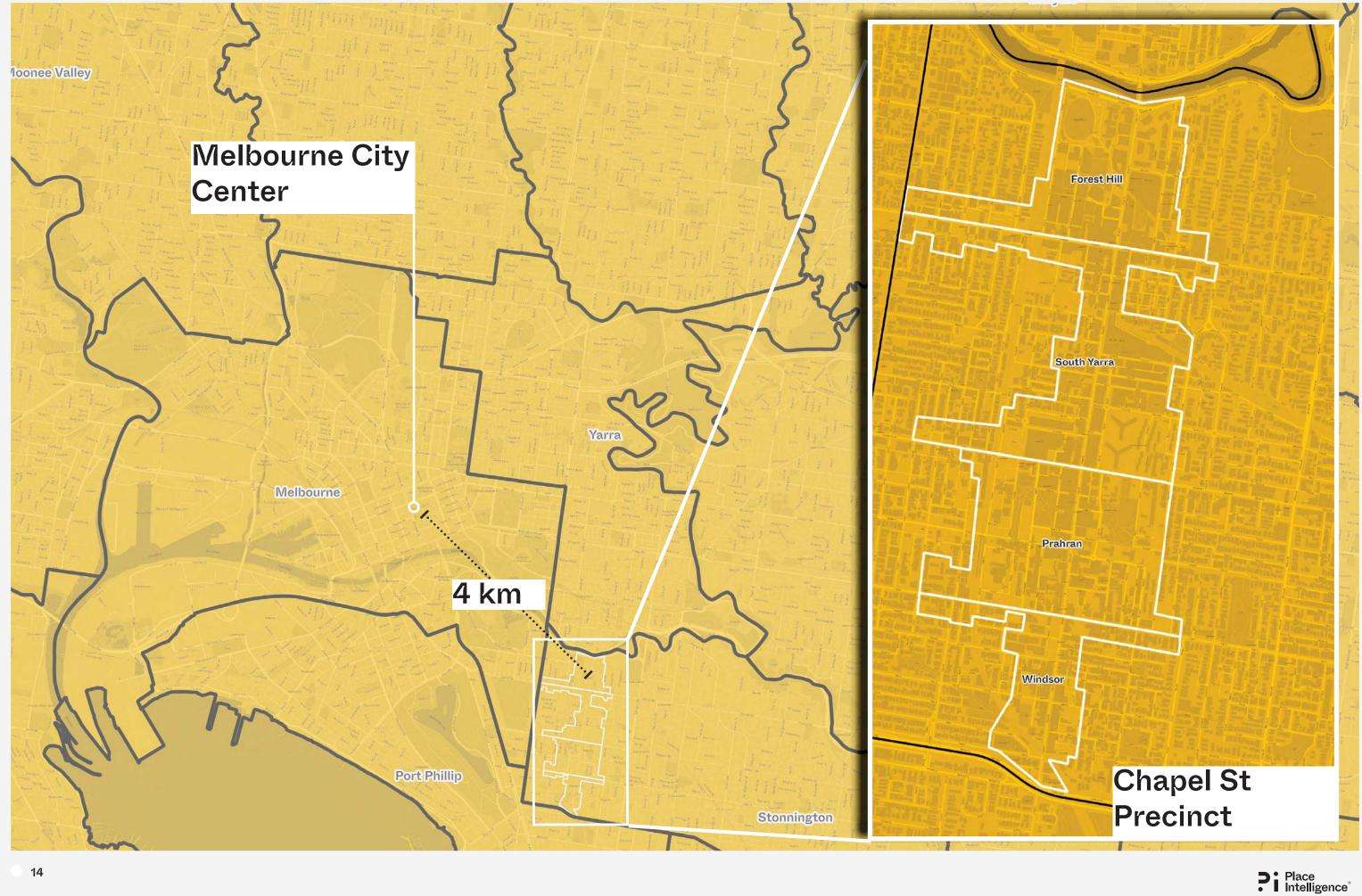
Stacked bar charts reveal the segmentation of activity in each column, where each column adds to 100%. This method allows to quickly understand what percent of activity is occurring in a given data series, and are typically used when combining two data variables. In the chart left, bars represent the split of users as either locals or visitors by day of the week in the precinct, where each weekday bar equals 100% of activity on the day split by the percentage of activity generated by a user group.

Sankey diagram

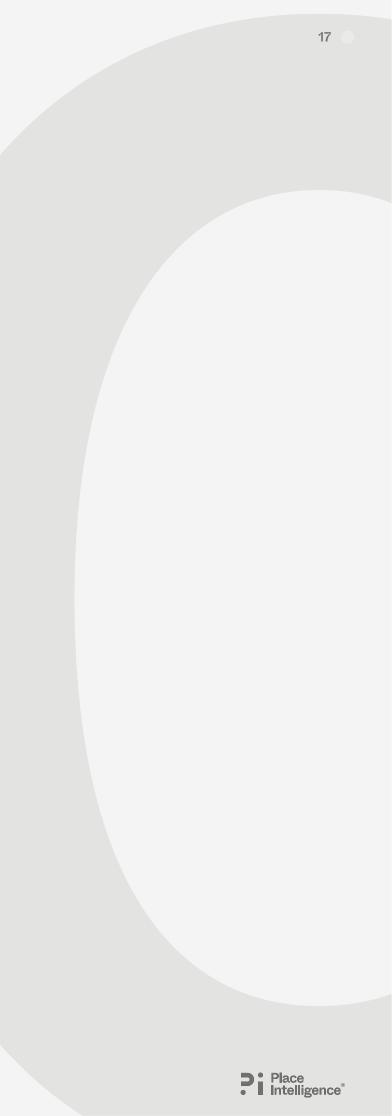
Sankey diagrams are used to visualize the magnitude of connections between multiple locations. In this report, sankey diagrams are used to understand the hierarchy of movement patterns between locations in the model. Line weights are based on the number of journeys between each location and scaled against all values in the model.



Geographic Context



2.0 Model Results



What is an activity baseline and how can it be applied?

The measure of how active a place is a reflection of the role and purpose as well as the value of a place to a community.

Activity measures are a quantitative means to understand place performance and are a key element of a site audit. Quantitative analysis provides longitudinal information on place use, reveling invisible trend patterns that are difficult or near impossible to obtain using traditional public life studies. The measure of activity is expressed in two forms, in spatial activity maps and in statistical charts.

All statistical expressions in the report use a percentage value to represent activity levels, describing the value distributions out of 100% of the total and/or as the percent change against a previous data point in the model (eg COVID 19 lock-downs reduced total demand by 80% over a two week period versus the average baseline in 2019).

Spatial expressions reveal when and where activity has occurred and is also expressed as a percent of total demand in visual means.

The establishment of an activity baseline has many use cases and applications. The following questions are not comprehensive, but are intended to provide end users with examples of how this index can be applied to different use cases:

Question	Overlay /Analysis	Potential Metrics	Value/
Which locations are driving activity in the precinct?	Overlay place features against activity models. Filter maps and charts to understand which locations have the most usage.	Year on Year Change, Day of the Week Change, Hour of the Day of Week Change	The know understar a place. I to track in
How have activity patterns changed over time?	Spatial analysis is a simple means to understand where people are seen across the precinct, and time filtering can reveal activity hot- spots at different times of day, for example.	Year on Year Change, Day of the Week Change, Hour of the Day of Week Change	Understa a valuable align to a tions to n
How do major events drive pre- cinct activity?	Spatial and temporal combine to reveal where people are seen on the time periods of events and how these events change patterns activity. Overlay opening hours of businesses (for example) can reveal if event demands are in line with operational hours.	Year on Year Change, Day of the Week Change, Hour of the Day of Week Change	Major even precincts a pandem ing the up strategies they are b
What role does the precinct play in the city?	The discovery of activity of precinct users in the city, when matched to key location types (such as buildings, roads, and public spaces) provides intelligence on the role and function of the precinct relative to usage of other destinations on the same day. Is the precinct a con- nector to other locations? What services are in the precinct that don't exist else where?	Year on Year Change, Day of the Week Change, Hour of the Day of Week Change	The know surround place by r may be m
Are marketing and outreach strategies having an impact?	Overlay marketing campaigns against the year on year timeline to see if campaigns are aligning to demand changes.	Week of Year Line Chart	Mapping the impac in.
Are the most used locations safe and equitable?	Overlay site condition assessments, lighting and CPTED principles, accessibility metrics to reveal if the most used places are in keeping with best practice.	Spatial activity maps, daily hourly demand charts.	Often the Identifyir provide a
Which asset should be invested in next?	Overlay place usage data against asset age, condition and depreciation to prioritize investment decisions. High usage values may be a reflec- tion of demand for the service of the asset, however low usage may also reflect desirability levels.	Year on Year Change, Day of the Week Change, Hour of the Day of Week Change	The know ment vari matrices
Are physical and programmatic upgrades having an impact?	Compare historical time series baseline data against real-time and updated data sets for the precinct to reveal changes in demand as the result of improvements.	Year on Year Change, Day of the Week Change, Hour of the Day of Week Change	The place comparis of past pe from upg
Are we best prac- tice and how do we compare to our peer locations?	Comparing relative demand between locations is an easy means to understand if your precinct is over our under indexing. The knowl- edge of place and population density in reference locations is a key data point, as high density locations with high populations will gen- erally over index against other locations. It is also valuable to discover the offering program, hours of operation, alignment to major trans- port nodes and other key precinct drivers when making a comparison.	Hour of the day, Month of the year	Comparis patterns o

/Benefit

whedge of usage linked to location types allows for rapid anding of the primary, secondary and tertiary drivers of Introducing new offers can reference the place baseline impact and performance.

19

tanding the spatial temporal dynamics of place usage is ole in that it can reveal how different time based offers audience demands and can inform strategies and solumatch demand patterns.

events, both programmed or natural have impacts on ets. Understanding how activity changes as the result of emic can help inform planning for future events. Measuruplift of a major gallery event can also help to validate ies for repeat events programs in the knowledge that e benefiting the wider precinct.

owledge of how the precinct is related to the city and adding offers can provide key insights into the value of the y revealing why people come, in addition to reveal what missing.

g trend data over many years can provide intelligence on act of outreach strategies and if they are worth investing

he most used spaces do not cater to all user groups. ring the most used spaces with time series analysis can an easy means jump start site studies and analysis.

owledge of usage data against traditional asset manageariables provides an easy means to build prioritization as to weigh and select options for investment.

ce index baseline should be used as reference point for ison for future improvement strategies. The knowledge performance can be used to compare change resultant ogrades both physical or programmed.

rison values are valuable in that they reveal the usage s of best practice locations.

CUSTOM INTERACTIVE DATA MODEL METRICS

Model Time Range - 2019 to 2022 May Data Source - Place Intelligence Metro. Model Sample Size: Unique devices seen: 1.5 million Number of Signal Events Processed: 50 million+

Model Metric - Percent of Total Activity

Metric Description - Percent of total activity is the representation of all site users seen at any given time range and location type. Data have been normalized using VIC control data from a variety of open data sources, including ABS population data, traffic control systems counts, city pedestrian counts as well as proprietary data normalization protocols developed by Place Intelligence. Each chart should be read as equaling 100% of the total usage of the location by time interval.

Model Sections Definitions

The following metrics have been computed and can be extracted on request if not included in this report.

Global Dashboard - Provides a summary of the precincts total activity with the ability to filter data by time.

- 24 hour day of week line chart- Provides the ability to identify place usage by hour and day of the week.
- Day hour highlight table Provides the ability to see groupings of activity by day and hour.
- Day of week index- Shows which day of the week accounts for what percent of all activity.
- Yearly by week number Reveals longitudinal change over the year by week number.
- Month of year Reveals longitudinal change over the year by month.
- Total activity by category Shows which category accounts for what percent of all activity.
- Total activity by type Shows which place type accounts for what percent of all activity.
- Total activity by name Shows which place name accounts for what percent of all activity.
- Month and week of year, continuous Provides longitudinal multiyear change over time for all selected categories, types or names combined.
- 24 hour profile by month of year Shows the average 24 hour profile by month of the year.

Place Category Dashboard - Provides a summary of the activity filtered by place categories.

- 24 hour profile by category Shows how each component part ranks over 24 hours on average.
- Category Index Shows how each component part ranks out of all activity.
- Day of week stacked bar chart Reveal the total percent of activity by day and the percent of activity for each component part.
- Week of year by category Shows change over time by week of year for each component part individually.

- Month of year by category Shows change over time by month of year for each component part individually.
- Day of week by hour of day comparison Shows a 24 hour profile for each day of the week for each component part.
- Interactive map with percent of total Identifies the total activity of each component part selected.

Place Type Dashboard - Provides a summary of the activity filtered by place types.

- 24 hour profile by type Shows how each component part ranks over 24 hours on average.
- Type Index Shows how each component part ranks out of all activity.
- Day of week stacked bar chart Reveal the total percent of activity by day and the percent of activity for each component part.
- Week of year by type Shows change over time by week of year for each component part individually.
- Month of year by type Shows change over time by month of year for each component part individually.
- Day of week by hour of day comparison Shows a 24 hour profile for each day of the week for each component part.
- Interactive map with percent of total Identifies the total activity of each component part selected.

Place Name Dashboard- - Provides a summary of the activity filtered by place names.

- 24 hour profile by name Shows how each component part ranks over 24 hours on average.
- Name Index Shows how each component part ranks out of all activity.
- Day of week stacked bar chart Reveal the total percent of activity by day and the percent of activity for each component part.
- Week of year by name Shows change over time by week of year for each component part individually.
- Month of year by name Shows change over time by month of year for each component part individually.
- Day of week by hour of day comparison Shows a 24 hour profile for each day of the week for each component part.
- Interactive map with percent of total Identifies the total activity of each component part selected.

PRECINCT QUICK STATS

Metric	Result
Year on Year (Including roads and parcels)	Peak year: 2019 2020 percent variance from 2021 percent variance from
Year on Year (parcel activity only)	Peak year: 2019 2020 percent variance from 2021 percent variance from 2021 percent variance from
Month of the year (parcel activity only)	Peak month: August (2019), Low Month: January (2019),
Leading Feature Class	Roads - 80% of all Activity
Hour of the day (parcel activity only)	Peak Hour (Yearly Average)
Leading End Destinations	By Building Name South Yarra Housing Estate South Yarra Train Station Fairbairn Boxing and Fitness Grilled,Hunky Dory,Frozen, vest,Xynergy Realty Group 1R Gym,Amity Property Gro Harper Bar,Huxtaburger Soda Rock Diner,Boost Juice Hello Sam South Yarra Sam Hibbins MP,Wholesale

Featured Discoveries

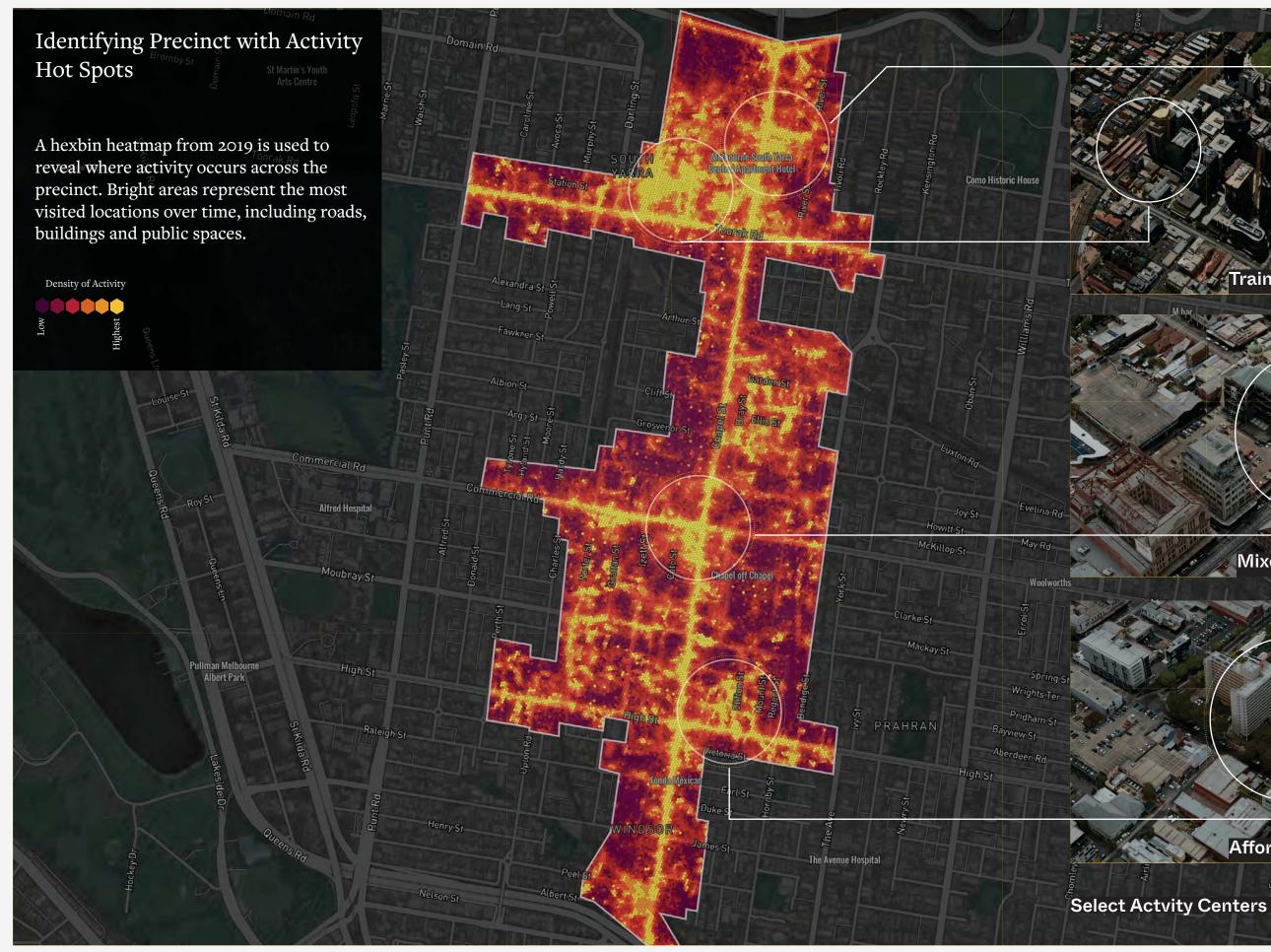
Between 2019 and 2021, the precinct has seen a major reduction in usage, dropping by as much as 30% against the baseline year of 2019 as the result of the changes in human behaviors primarily linked to Covid19 lock-downs. This value is further extended when looking only at the destination areas inside the precinct boundary (excluding surrounding roads) with a drop in activity by more than 40%. Irregular usage patterns have created a-typical peak demands by month of the year, with all three years having a different peak and low usage month. In most instances the site hourly usage peaks around mid-day, with the baseline peak being at 5pm in 2019. Roads are the most used asset class on the site accounting for up to 80% of all activity in the model. However only 50% of all users of the road network stop in end destinations in the precinct.

er time for all selected profile for each da ind. - Shows the average 24 activity of each com

2019: (-30%) decrease 2019: (-15.9%) decrease	
2019: (-40%) decrease 2019: (-30%) decrease 2020: (+16%) increase	
October (2020), November (2021) , April (2020), August (2021)	
: 5pm (2019), 5pm (2020), 3pm (2021)	
Outdoor Gym,South Yarra Preschool	6.37% 5.73%
s,Melbourne High School,The Unicorn Club Middle South East,Amazing Accommodations,Har-	3.50%
oup,HSBC,Bistro Omnia,One Point Seven Four,Dior	3.32% 1.71% 1.68%
e,Cotton On Fashion,Finerrings	1.56% 1.52%
Beads,Dominos,Sam Hibbins MP	0.94%



Understanding Precinct Activity





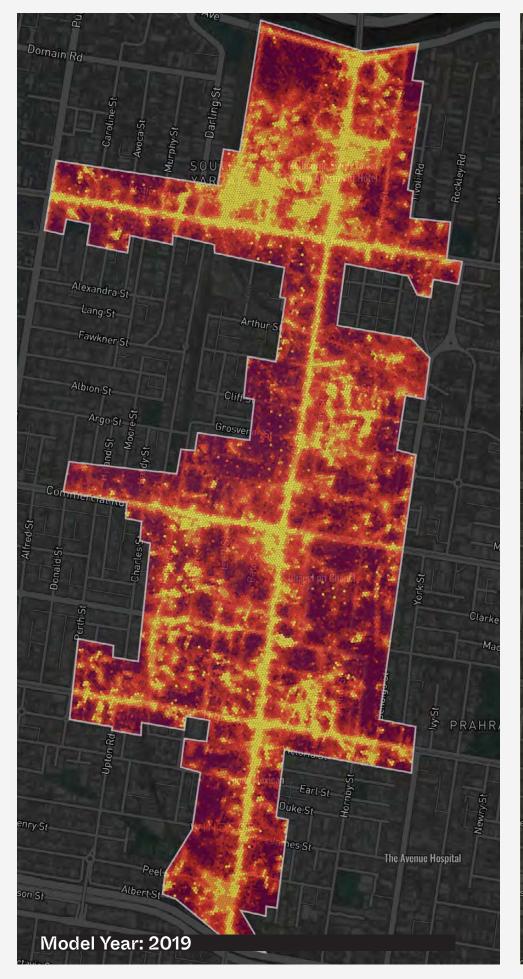
Train and High Density

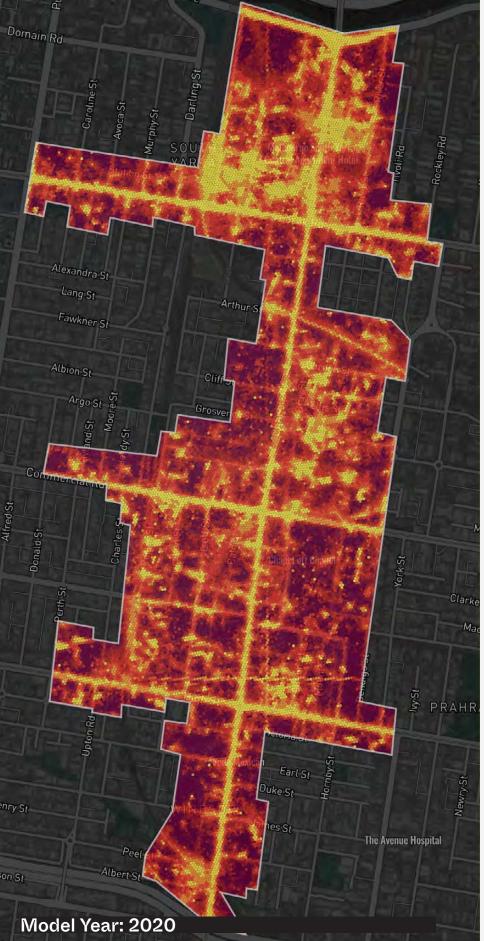


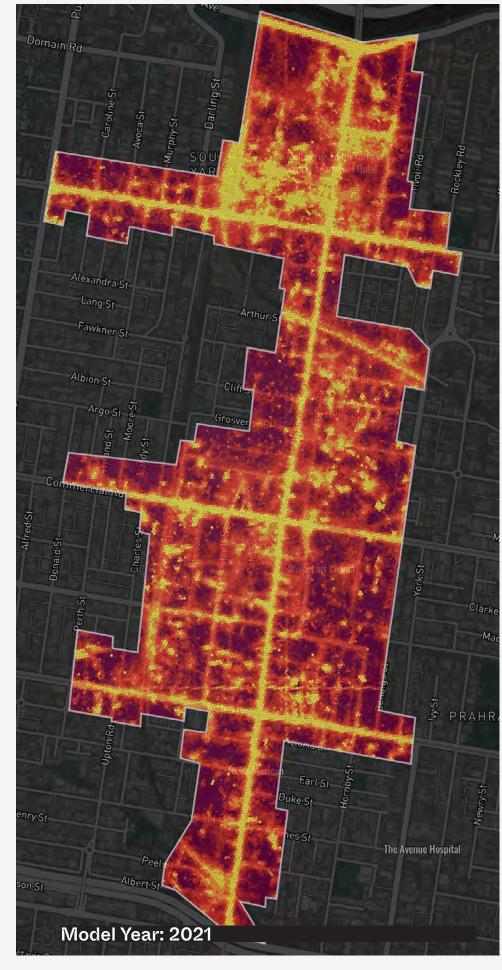
Affordable Housing



Yearly Activity Aggregated Activity







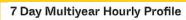


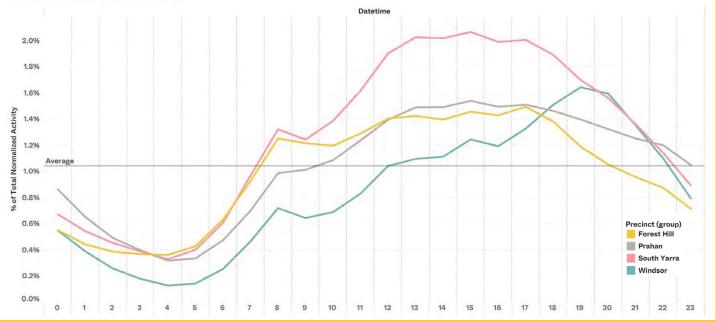
Key Insights About the Precinct

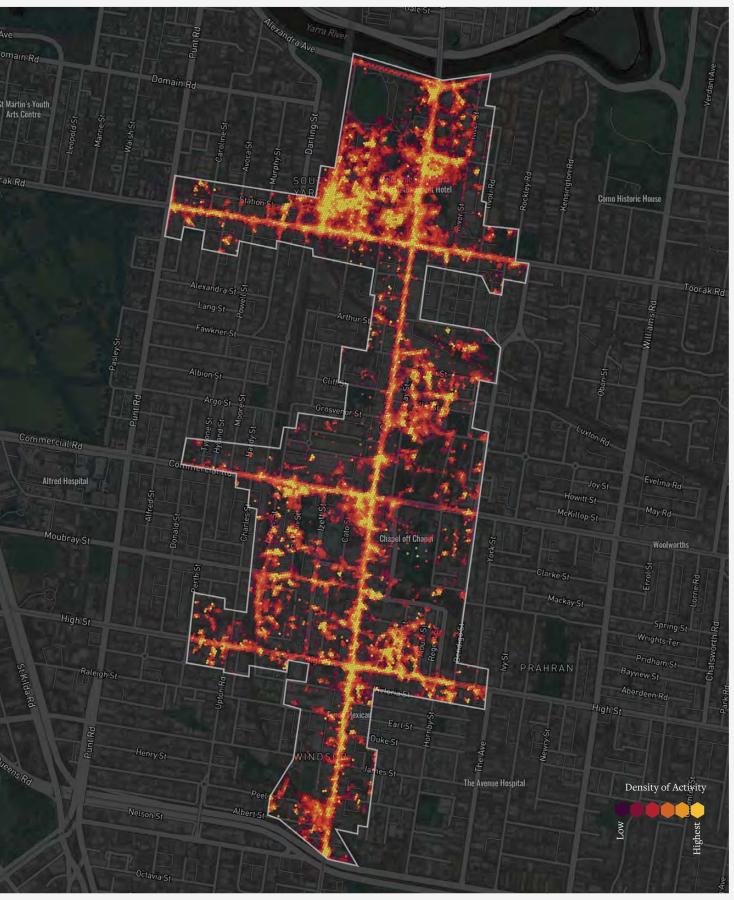
Select Precinct Metrics

Precinct metrics provide a quick means to understand the high level dynamics of the precinct.

Metric	v	alue	Note
Total Activity by Precinct Zone Multi Year Average 2019- 2022	Forest Hill Prahran South Yarra Windsor	23.89% 25.23% 30.55% 20.33%	Summing all person hours spent in each zone provides an objective means to identify which location has the greatest or least popularity and usage across all asset types. 77% of all activity is in the movement network (including the foot- paths)
Busiest Day of Week by Precinct Zone Multi Year Average 2019- 2022	Forest Hill South Yarra Prahran Windsor	Friday Friday Friday Saturday	Fridays are the busiest day in nearly every time period in the model. Saturdays are only slightly busier in Windsor than fri- days with a +1% difference in activity.
Busiest Hour of Day Multi Year Average 2019- 2022	Forest Hill Prahan South Yarra Windsor	5 PM 3 PM 3 PM 7 PM	Across all areas, the daily peak activity level is at 5pm.
Busiest Month of Year 2019 Per Pandemic Baseline	Precinct Forest Hill Prahran South Yarra Windsor	March May March March March	For the pre pandemic baseline year, March was the busiest month.







Precinct 60th-100th Demand Profile

A pre pandemic activity heat map from 2019, filtered to the top places where people are seen over time reveals critical infrastructure and places.



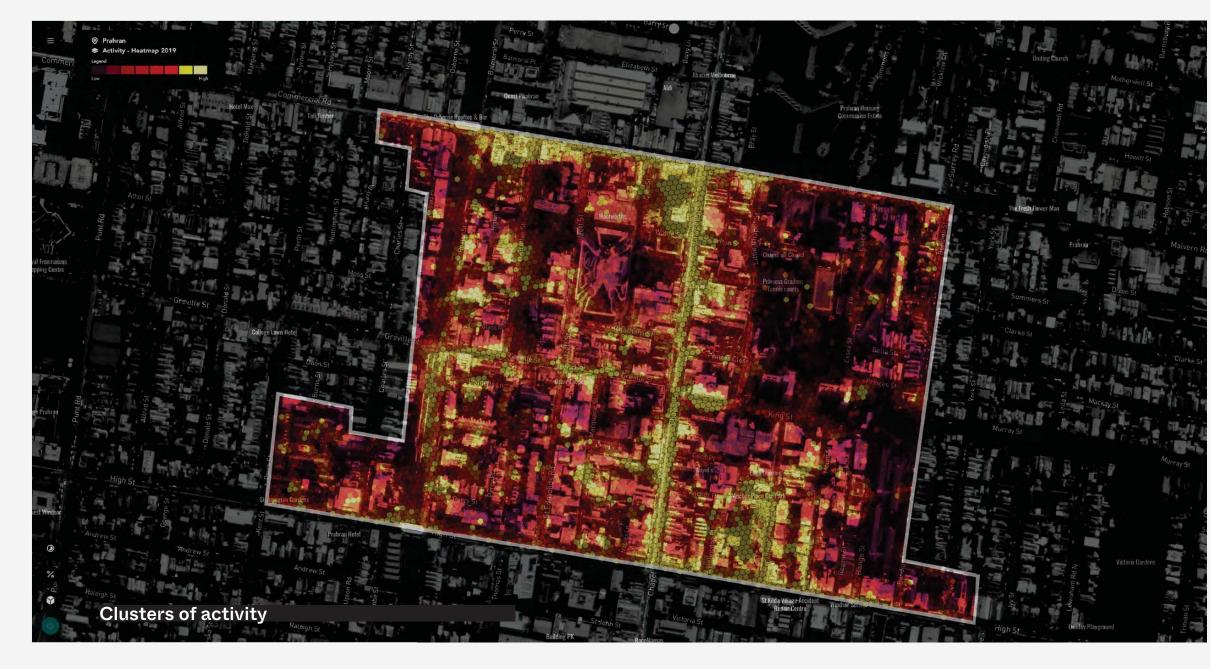
Example Multi Layer Analysis in Photoshop



Spatial Analysis

Blending data in Adobe Photoshop provides a simple means it isolate high usage areas for visual analsyis.

Data in the Place Intelligence GeoData studio can be filtered to a relevant demand percentile and desired date range prior to multilayer anaysis.

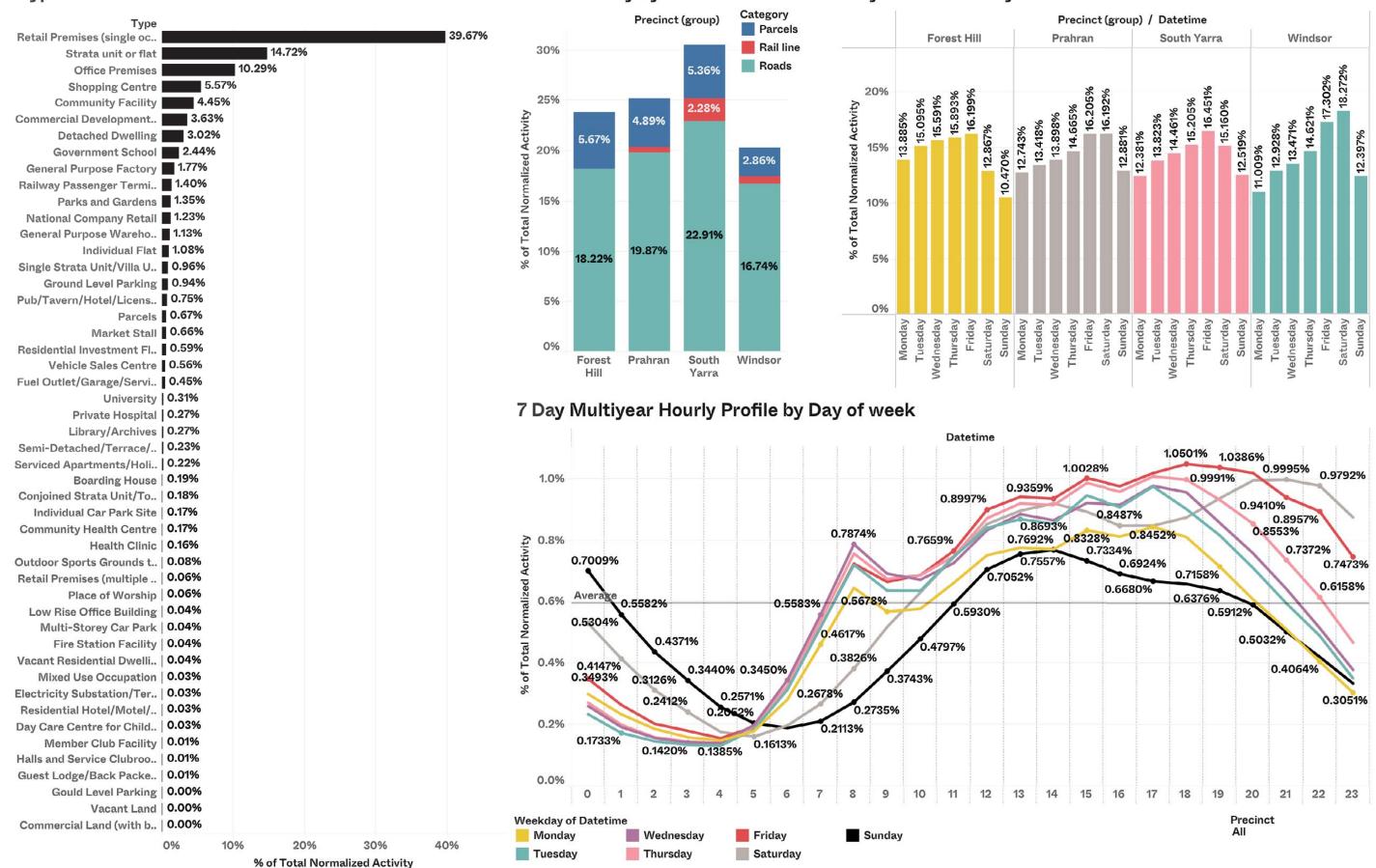






Global Stats

Type Rank

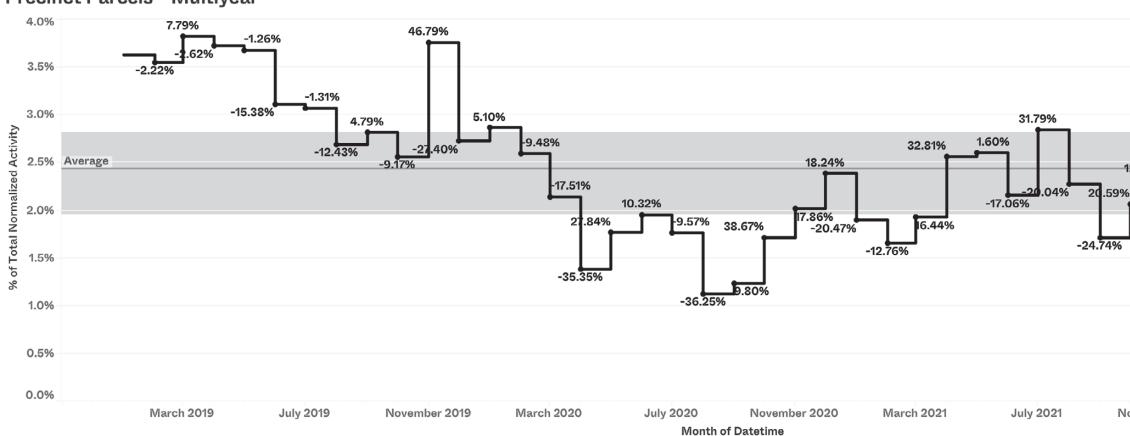


Total Activity by Precinct

Day of the Week by Precinct

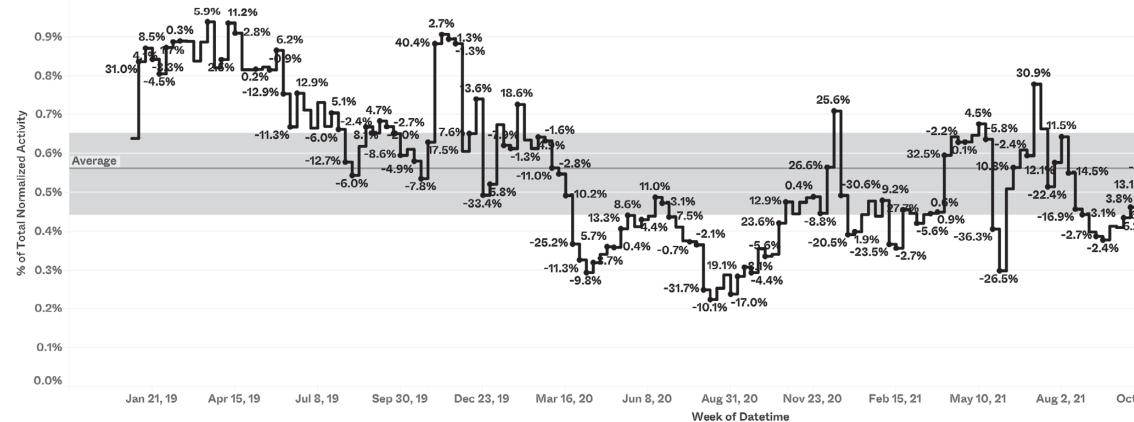


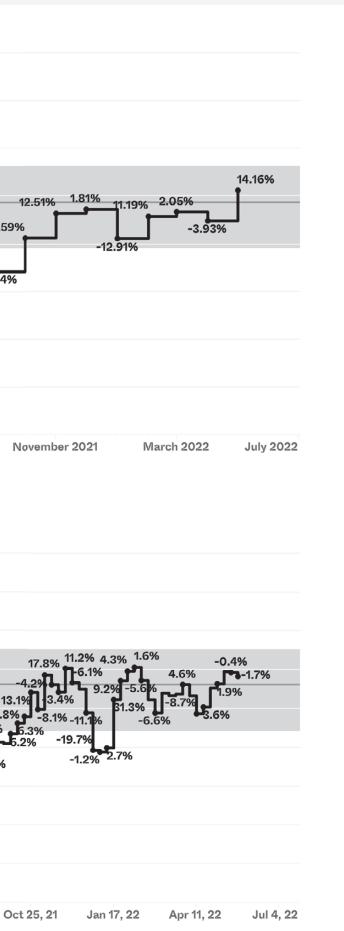
Destination Index - By Month and Week Number, Multi year Average



Precinct Parcels - Multiyear

Precinct Parcels - Multiyear By Day of Week

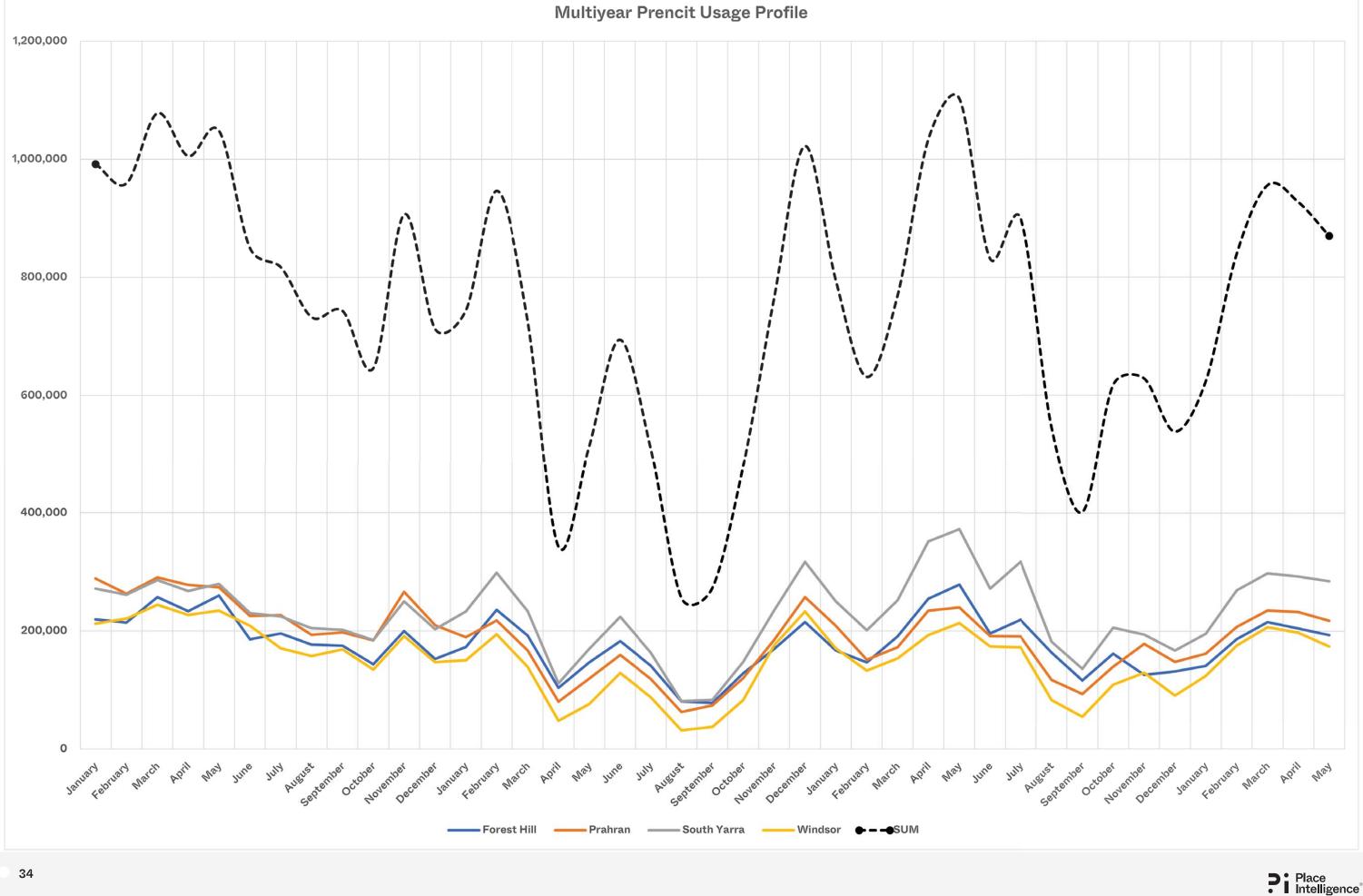






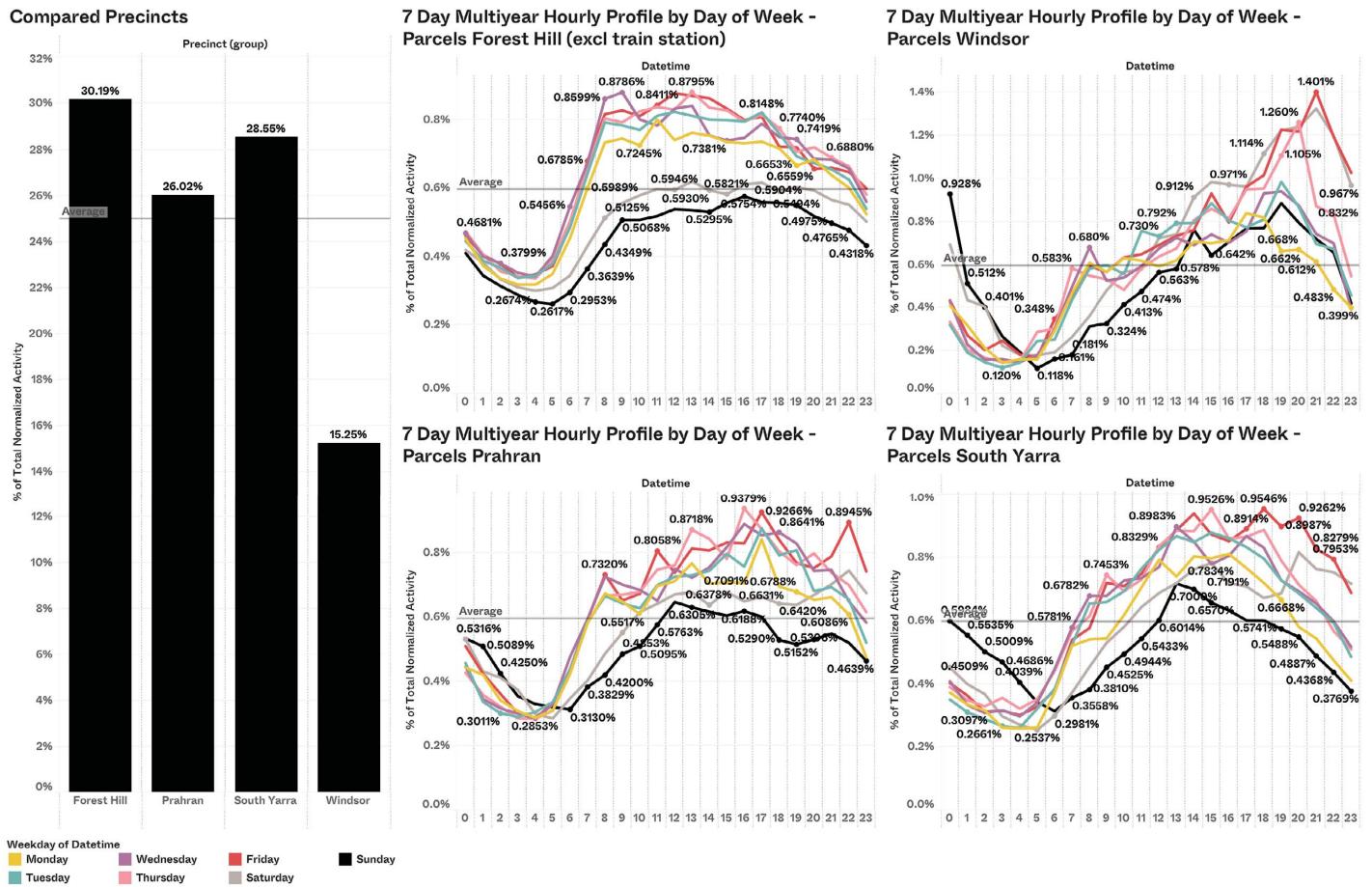
33

Precinct Multi year Continuous Profile (Activity Sum)



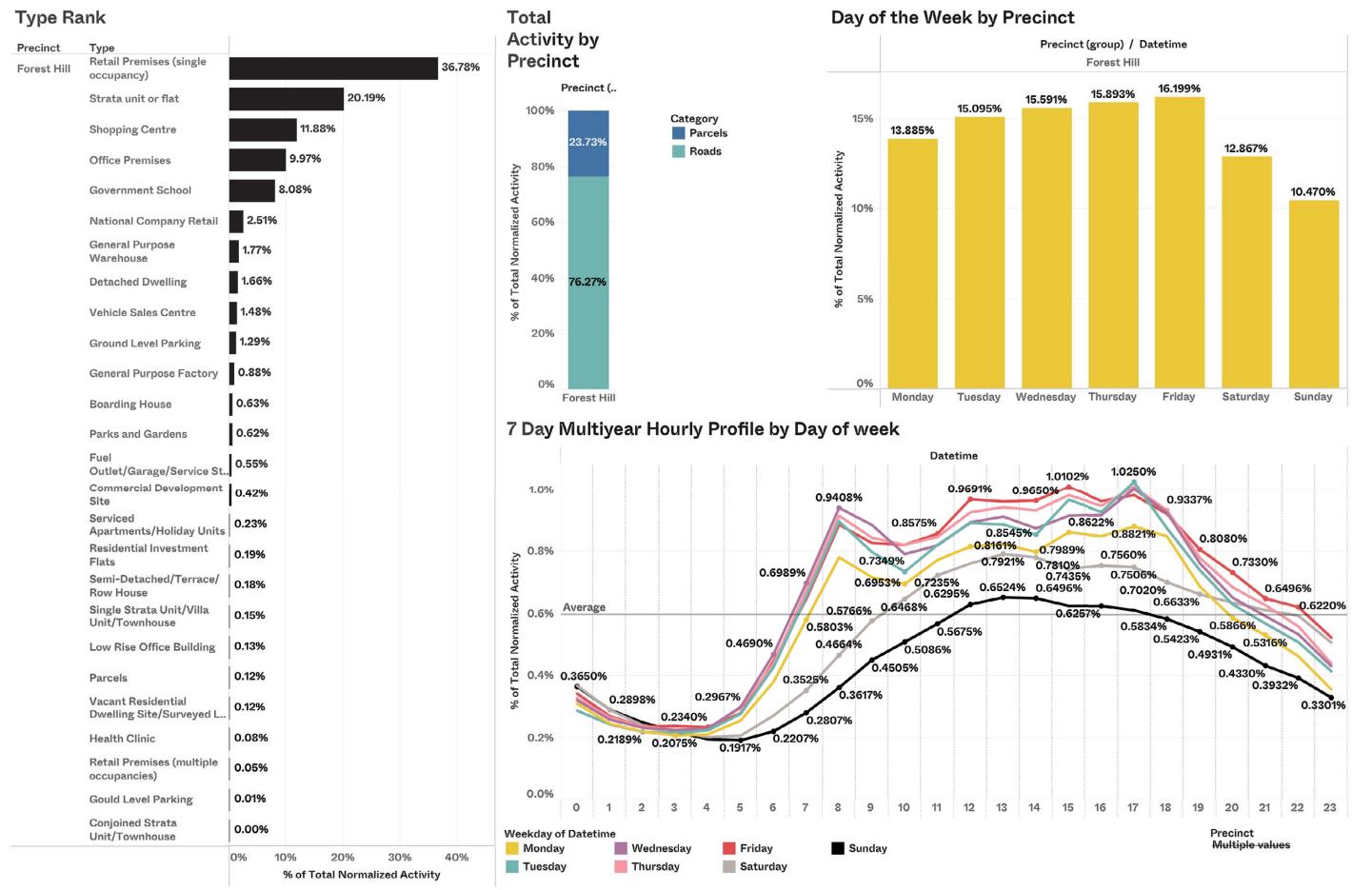


Destination Index - By Hour, Multi year Average



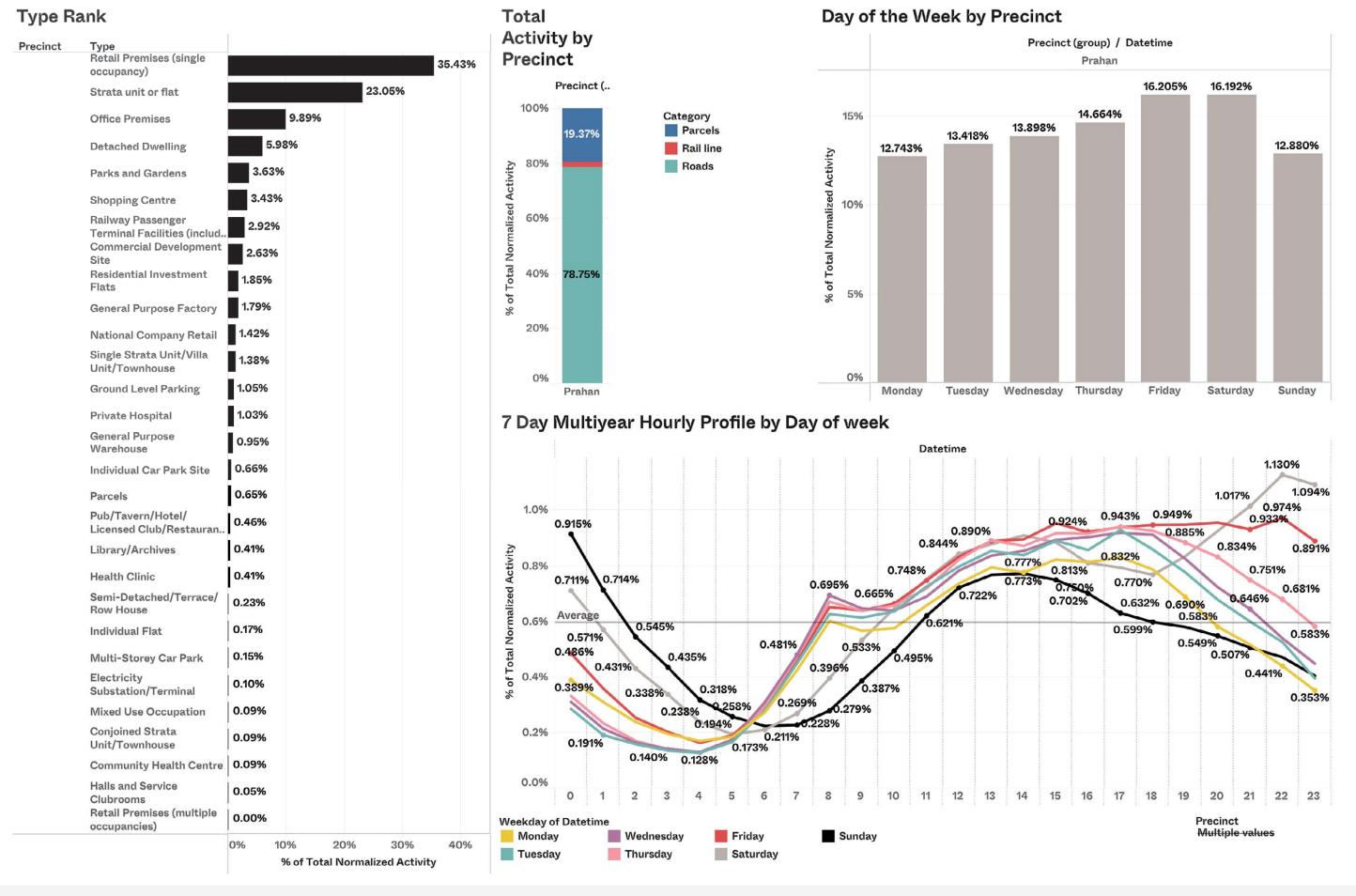
Place Intelligence®

Global Stats - Forest Hill Multi year Average





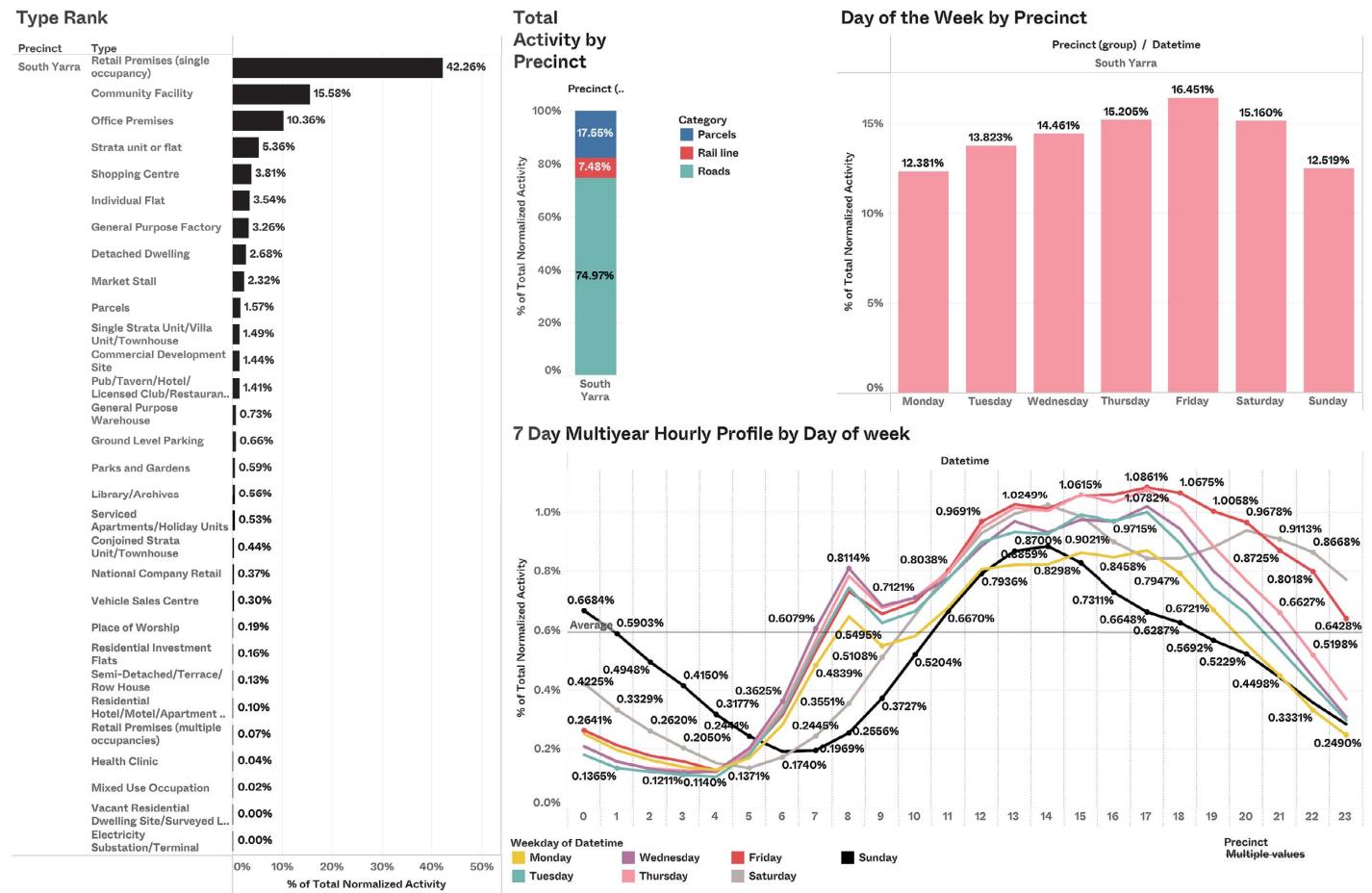
Global Stats - Prahran Multi year Average



Place Intelligence®

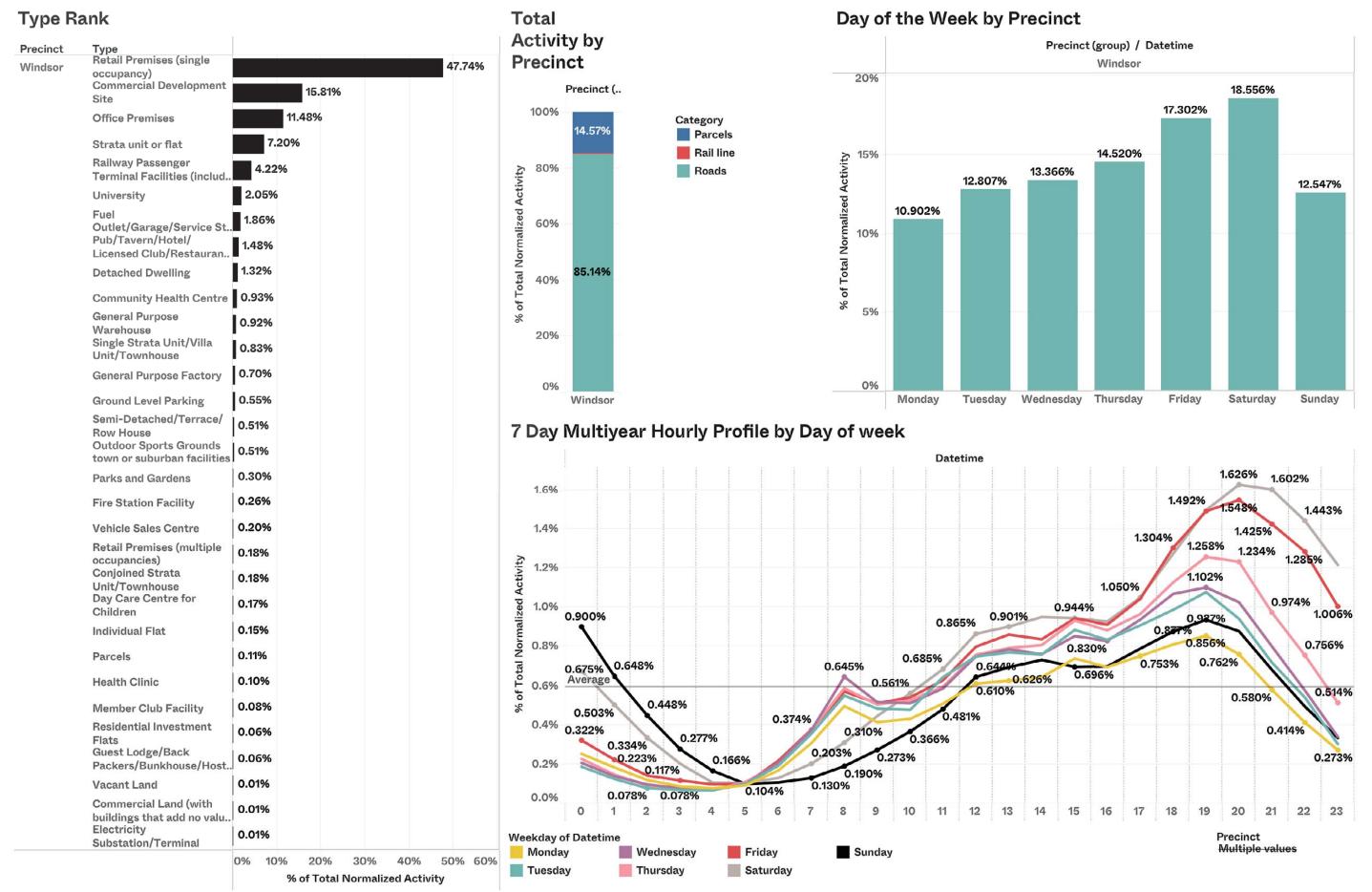


Global Stats - South Yarra Multi year Average





Global Stats - Windsor Multi year Average





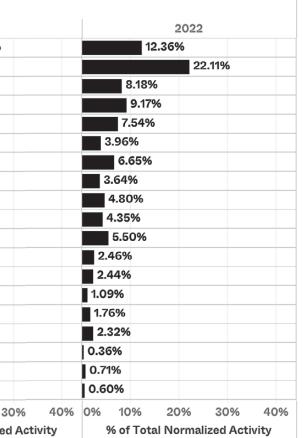
Place Intelligence®

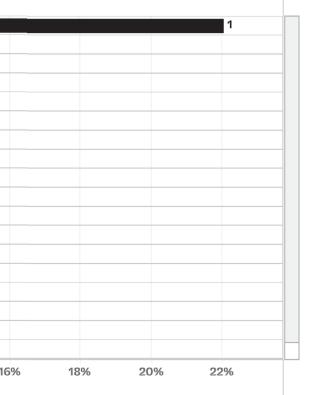
Ranking Car Parks by Year

					Date	etime
Address	Name	Precinct	2019		2020	2021
Macfarlan St Car Park	Macfarlan St Car Park	Forest Hill		32.56%	11.86%	18.58%
9 Elizabeth Street SOUTH YARRA	Care Park - 9 Elizabeth Street, South Yarr	South Yarra	10.18%		19.00%	16.70%
Car park 3-7 Darling Street SOUTH YA	Car park 3-7 Darling Street SOUTH YARR	Forest Hill	22.58%	6	9.40%	7.17%
Car park 3-5 Princes Close PRAHRAN	Car park 3-5 Princes Close PRAHRAN	Prahan	6.52%		7.69%	6.68%
Surrey Road Car Park	Surrey Road Car Park	Forest Hill	3.59%		5.98%	7.39%
8-14 King Street PRAHRAN	Car Park,parking	Prahan	2.37%		5.12%	9.22%
Car park 28 Chapel Street WINDSOR	Parking	Windsor	3.53%		6.07%	5.09%
Caroline St Car Park	Caroline St Car Park	Forest Hill	0.88%		13.64%	3.70%
Car park 2-4 Market Street SOUTH YA	Car park 2-4 Market Street SOUTH YAR	South Yarra	2.57%		4.90%	4.12%
Car park 225-227 Chapel Street PRAH	Car park 225-227 Chapel Street PRAHRA	Prahan	4.67%		1.73%	2.76%
11-15 James Street WINDSOR	11-15 James Street WINDSOR	Windsor	2.37%		4.21%	3.50%
7 Little Chapel Street PRAHRAN	7 Little Chapel Street PRAHRAN	Prahan	2.11%		1.72%	2.16%
62 Arthur Street SOUTH YARRA	62 Arthur Street SOUTH YARRA	South Yarra	0.75%		2.61%	3.44%
3 Bowling Green Street WINDSOR	3 Bowling Green Street WINDSOR	Windsor	1.36%		0.84%	3.65%
Car park 13-17 Murphy Street SOUTH Y	Car park 13-17 Murphy Street SOUTH YA	Forest Hill	1.50%		1.67%	2.13%
108 Commercial Road PRAHRAN	108 Commercial Road PRAHRAN	Prahan	0.69%		2.36%	2.09%
99 Bendigo Street PRAHRAN	99 Bendigo Street PRAHRAN	Prahan	1.03%		0.28%	0.59%
Powell St Car Park	Powell St Car Park	Forest Hill	0.38%		0.58%	0.63%
21 Bowling Green Street WINDSOR	21 Bowling Green Street WINDSOR	Windsor	0.37%		0.36%	0.40%
			0% 10% 20% 309 % of Total Normalized A		0% 10% 20% 30% 40% % of Total Normalized Activity	0% 10% 20% 30% 40% % of Total Normalized Activity

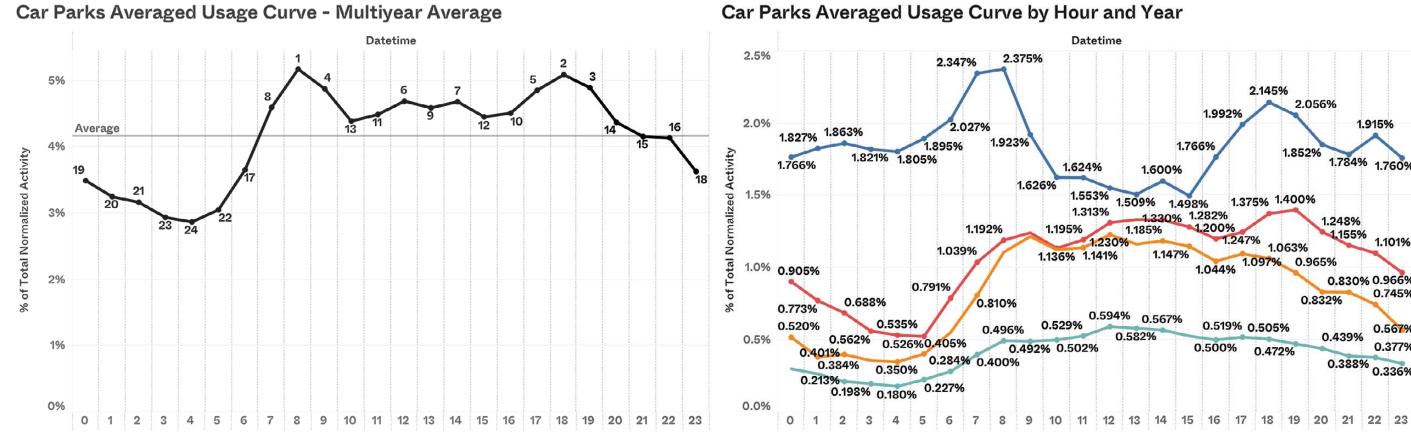
Ranking Car Parks

Address	Name	Precinct											
Macfarlan St Car Park	Macfarlan St Car Park	Forest Hill											
9 Elizabeth Street SOUTH YARRA	Care Park - 9 Elizabeth Street, South Ya	South Yarra											2
Car park 3-7 Darling Street SOUTH YARR	Car park 3-7 Darling Street SOUTH YAR	Forest Hill										3	
Car park 3-5 Princes Close PRAHRAN	Car park 3-5 Princes Close PRAHRAN	Prahan					4						
Surrey Road Car Park	Surrey Road Car Park	Forest Hill				5							
8-14 King Street PRAHRAN	Car Park,parking	Prahan				6							
Car park 28 Chapel Street WINDSOR	Parking	Windsor			7	,							
Caroline St Car Park	Caroline St Car Park	Forest Hill			8	\$							
Car park 2-4 Market Street SOUTH YAR	Car park 2-4 Market Street SOUTH YAR	South Yarra			9								
Car park 225-227 Chapel Street PRAHRA	Car park 225-227 Chapel Street PRAHR	Prahan			10								
11-15 James Street WINDSOR	11-15 James Street WINDSOR	Windsor		1	1								
7 Little Chapel Street PRAHRAN	7 Little Chapel Street PRAHRAN	Prahan		12									
62 Arthur Street SOUTH YARRA	62 Arthur Street SOUTH YARRA	South Yarra		13									
3 Bowling Green Street WINDSOR	3 Bowling Green Street WINDSOR	Windsor		14									
Car park 13-17 Murphy Street SOUTH YA	Car park 13-17 Murphy Street SOUTH Y	Forest Hill		15									
108 Commercial Road PRAHRAN	108 Commercial Road PRAHRAN	Prahan		16									
99 Bendigo Street PRAHRAN	99 Bendigo Street PRAHRAN	Prahan	17										
Powell St Car Park	Powell St Car Park	Forest Hill	18										
			0%	2%	4%	6%	,)	8%	10%	12	.%	14%	16%
									% of To	tal Norm	alized Activ	vitv	



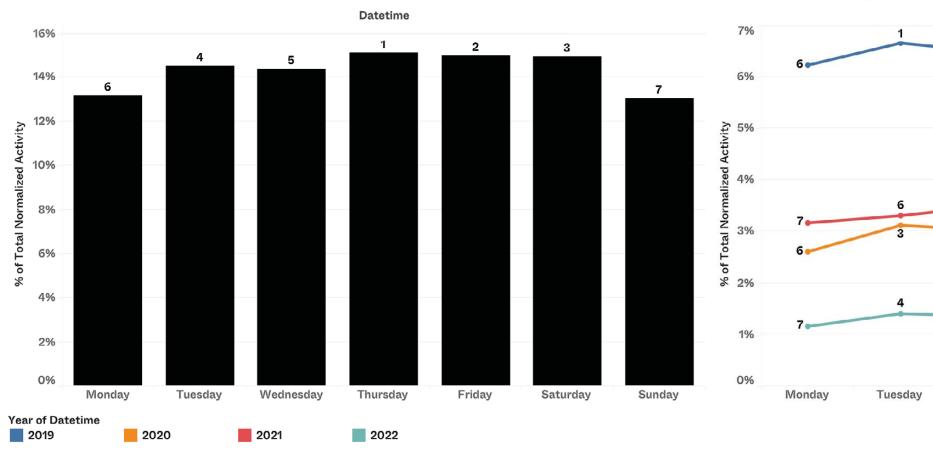






Car Parks Averaged Usage Curve - Multiyear Average Day of Week Rank

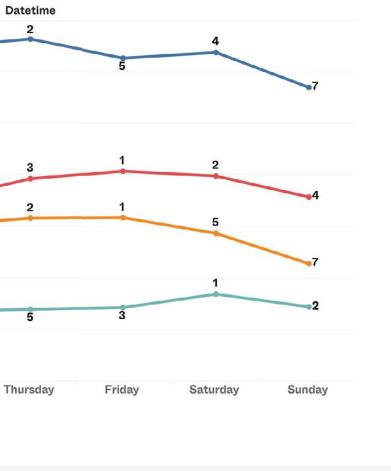




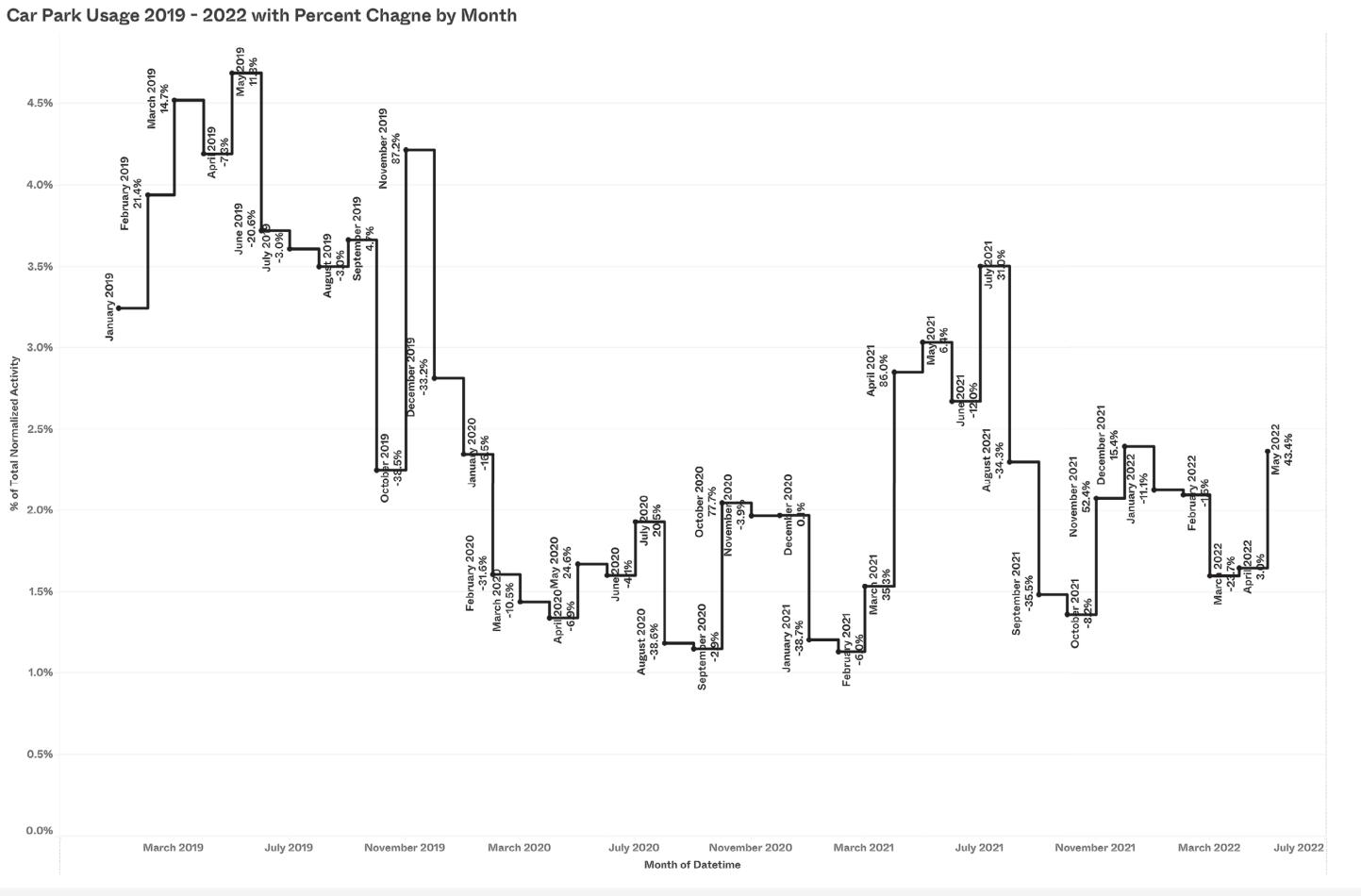




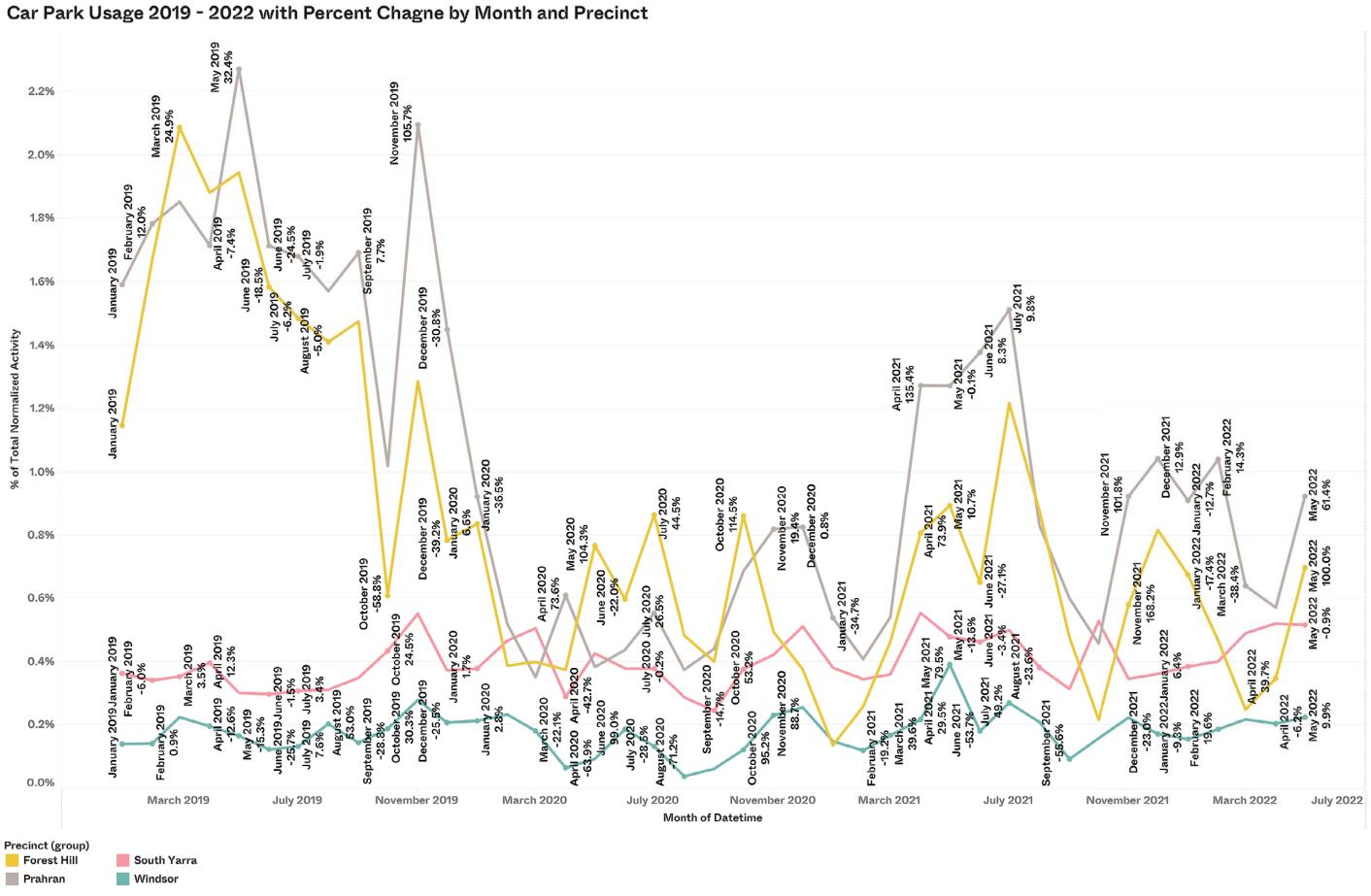
Wednesday





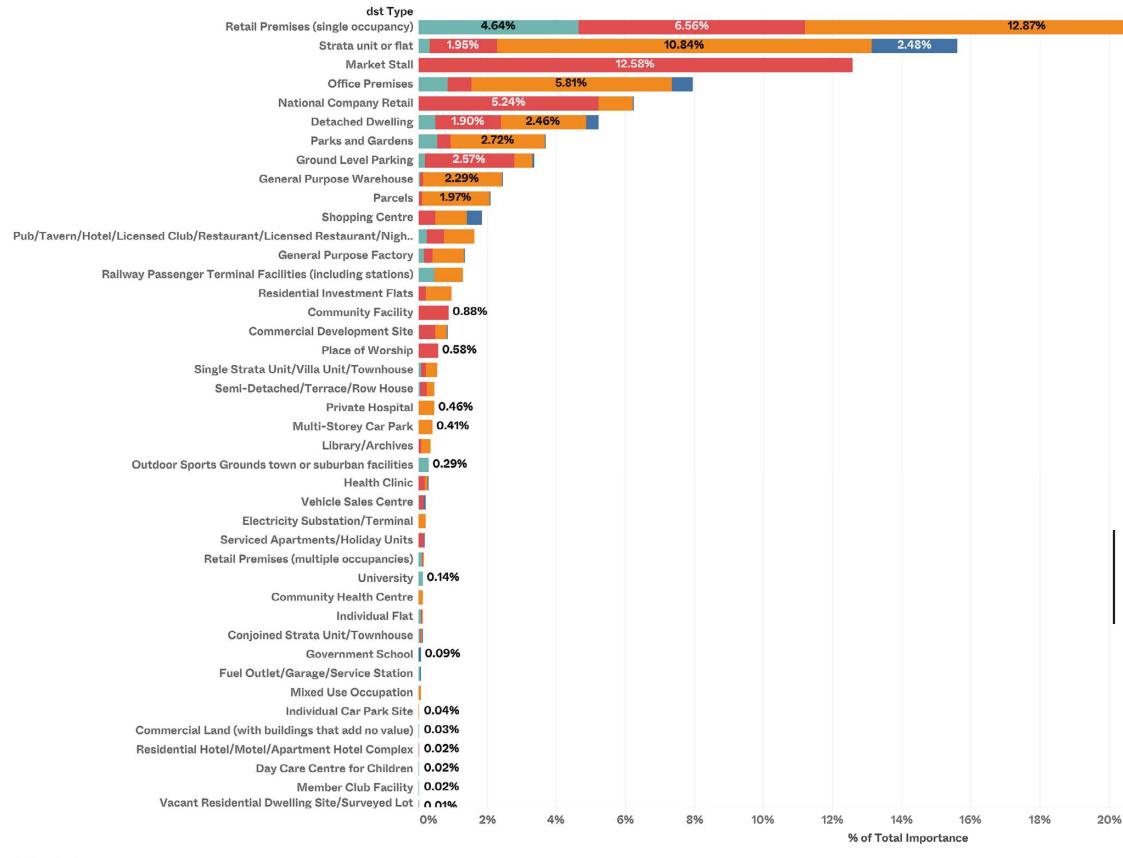








Car Park Destinations



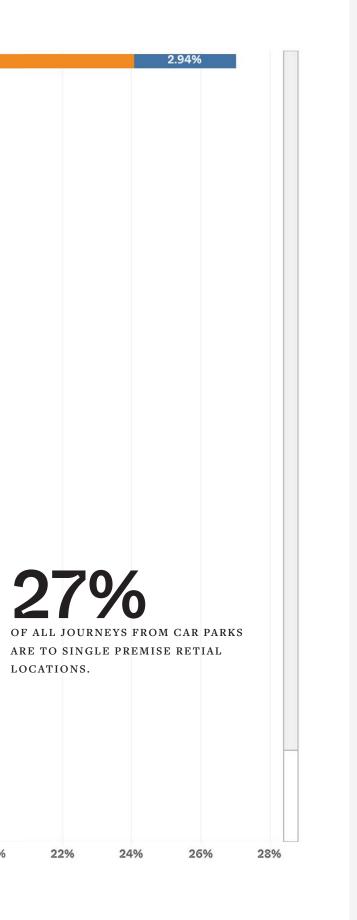
dst Precinct Windsor

South Yarra

Forest Hill

Prahran

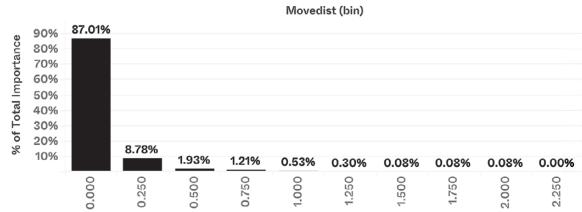
54





55

Trips from Car Parks - Distance Travelled



Destinations from Car Parks

dst Name	
Prahran markets	12.49%
ALDI,Fuji Mart Melbourne	5.24%
89/108 Greville Street PRAHRAN	2.67%
Minimalistic Prahran Apartment with Balcony	2.61%
Harper Bar,Huxtaburger	2.43%
Revolver Lane	1.97%
Jb-Hi-Fi,Dan Murphys Cellar,Jb-Hi-Fi	1.75%
Cafe Pixxina, MELBOURNE H2O SWIMMING CLUB, Princes Gardens	1.71%
Thrills,Better Choice,Oishi,Rebel Sport	1.66%
15/60 Arthur Street SOUTH YARRA	1.48%
Vacant	1.17%
Edge Training Prahran, Humming Puppy, Prahran Gym	1.15%
Train Station	1.14%
Vacant,Gorman,Amici,Handworks Nouveau Paperie,Vacant	1.08%
Car park 2-4 Market Street SOUTH YARRA	1.06%
Michael Sharp Legal, SENSE PRODUCTS MASSAGE CLINIC, Trumble Szanto	0.99%
Grattan Gardens	0.98%
Veronika Maine,Laser Clinics Australia,Kaya,Eb Games,Wittner Shoes,Optus,CUE,AN	0.90%
South Yarra Housing Estate Outdoor Gym,South Yarra Preschool	0.88%
90 Greville Street PRAHRAN	0.84%
1-5 Little Chapel Street PRAHRAN	0.81%
Sam Hibbins MP,Wholesale Beads,Dominos,Sam Hibbins MP	0.80%
Hawker Hall	0.80%
510/6 Murphy Street SOUTH YARRA	0.79%
Care Park - 9 Elizabeth Street, South Yarra,Claringbold's Seafoods,Prahran Market Pa	0.77%
Vision	0.74%
12-16 Cecil Place PRAHRAN	0.73%
Casa Nom,Brother Wolf	0.73%
401/8 Murphy Street SOUTH YARRA	0.66%
Next Practice,Urban Express,Vacant,Pizza Hub,Pisces Flower,Next Practice	0.65%
102/25 King Street PRAHRAN	0.64%
Eurotrash,Mancini'S Hair,Jane Doe,Chapel St Bazar Antiques	0.57%

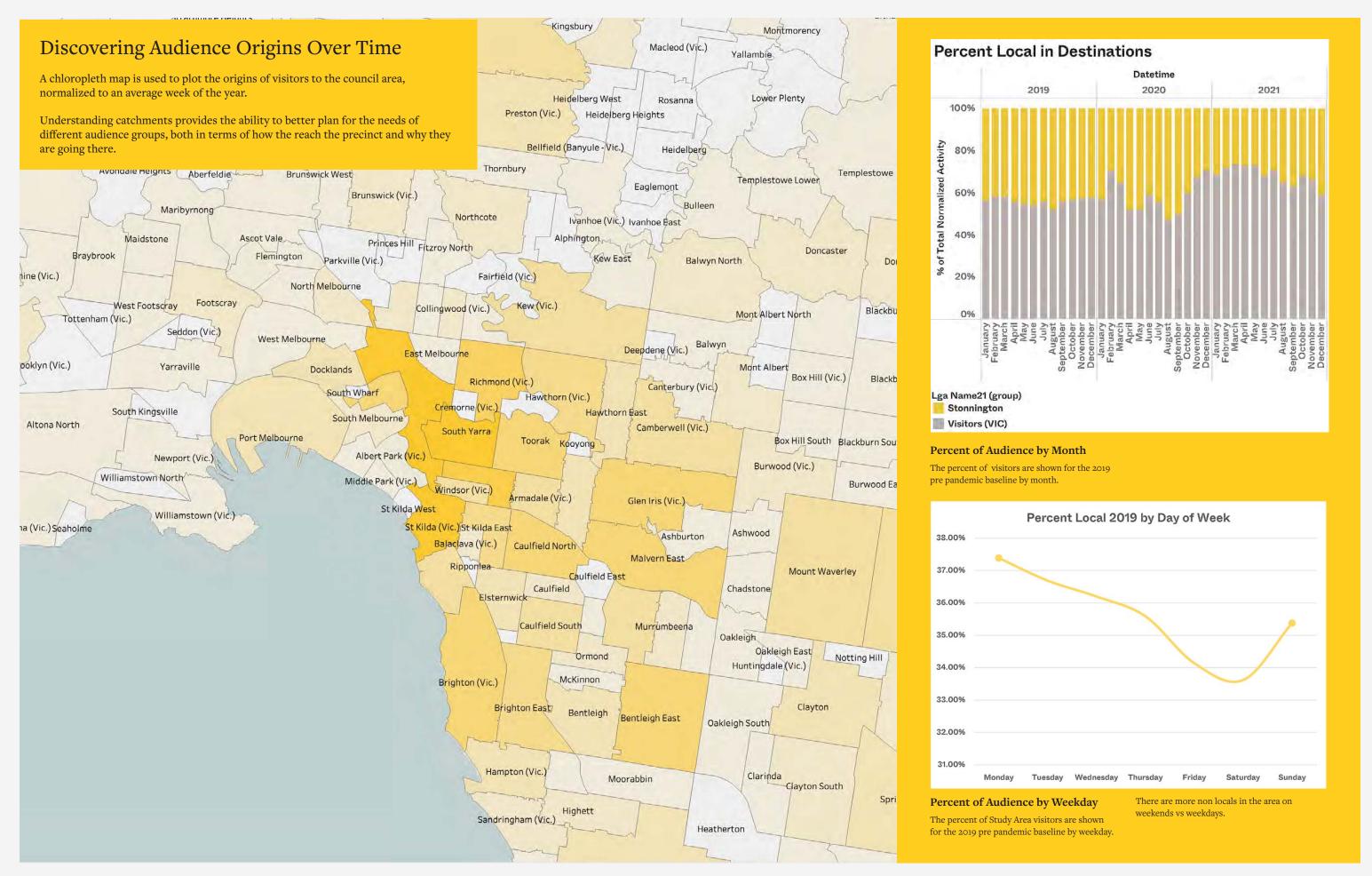
Trips from Car Parks - Distance Travelled to Destination Type

dst Type	0.000	0.250	0.500	0.750	1.000	1.250	1.500	1.750	2.000
Retail Premises (single occupancy)	26.51%	28.65%	32.80%	31.29%	35.20%	39.92%	42.19%	46.48%	55.22%
Strata unit or flat	16.16%	10.80%	16.43%	11.18%	14.57%	11.46%	17.19%	12.68%	7.46%
Market Stall	14.30%	1.18%	0.98%	0.68%	0.67%	0.40%			
Office Premises	7.89%	8.49%	7.45%	8.84%	8.52%	6.32%	6.25%	18.31%	
National Company Retail	6.64%	4.69%	0.86%	1.46%	2.47%	1.58%			7.46%
Detached Dwelling	5.53%	3.09%	3.97%	3.11%	3.59%	0.79%		4.23%	
Parks and Gardens	3.43%	7.18%	1.53%	1.36%	2.24%	0.79%			
Ground Level Parking	3.62%	1.56%	1.16%	2.53%	0.90%	1.19%		4.23%	
General Purpose Warehouse	2.64%	1.21%	1.04%	0.97%	0.67%	1.19%			
Parcels	2.29%	0.12%	2.75%	1.17%		1.58%	1.56%		
Shopping Centre	0.88%	6.38%	8.80%	14.87%	13.45%	19.37%	6.25%	8.45%	16.42%
Pub/Tavern/Hotel/Licensed Club/Restaurant/Licensed Re	1.61%	1.79%	1.22%	1.75%	2.02%	1.98%	012070	0.1070	1.49%
General Purpose Factory	1.11%	3.54%	1.47%	1.46%	0.45%	1.19%	1.56%		1.457
Railway Passenger Terminal Facilities (including stations)	1.12%	1.17%	5.01%	9.82%	2.47%	1.1370	1.0070		
Residential Investment Flats	0.97%	0.91%	1.53%	0.10%	0.22%	0.79%			
Community Facility	0.17%	7.80%	2.02%	0.29%	0.67%	0.1570			
Community Facility Commercial Development Site	0.17%	2.52%	2.02%	0.29%	1.79%	1.98%	4.69%		
Place of Worship	0.62%	0.38%	0.24%	0.19%			4.0570		
Place of Worship Single Strata Unit/Villa Unit/Townhouse	0.58%	0.38%	0.24%	0.19%	0.22%				
Single Strata Only vina Only Townhouse Semi-Detached/Terrace/Row House	0.46%	0.55%	0.61%	0.9770	0.2270				
	0.43%	0.82%	0.43%	0.10%					
Private Hospital	0.45%	0.82%	0.18%	0.1070					
Multi-Storey Car Park				0 4 4 0/	2.69%	0 70%	- G	1 4 4 0 /	
Library/Archives	0.26%	0.59%	1.34%	2.14%	1.35%	0.79%		1.41%	
Outdoor Sports Grounds town or suburban facilities Health Clinic	0.31%	0.62%	0.49%		1.33%	0.40%	1.56%		
	0.24%	1.72%	0.35%	1.36%	0.22%		1.30%		
Vehicle Sales Centre			0.2470	1.3070	0.22%	0.79%			
Electricity Substation/Terminal	0.24%	0.07%	0.040/	0.400/					
Serviced Apartments/Holiday Units	0.19%	0.04%	0.24%	0.19%	0.000/				
Retail Premises (multiple occupancies)	0.15%	0.07%	0.37%	0.10%	0.22%				
University	0.02%	1.30%		0.78%					
Community Health Centre	0.13%	0.30%	0.55%	0.10%	0.4594		0.4004		
Individual Flat	0.09%	0.17%	0.55%	0.19%	0.45%		3.13%		
Conjoined Strata Unit/Townhouse	0.08%	0.23%	0.37%	0.10%	0.000/	0.050/		4 000/	4 4000
Fuel Outlet/Garage/Service Station	0.03%	0.17%	0.49%	1.46%	0.90%	3.95%	45 6004	4.23%	4.48%
Government School	0.070/	0.51%	0.18%	0.4004	3.81%	2.37%	15.63%		2.99%
Mixed Use Occupation	0.07%	0.12%	0.18%	0.10%					
Individual Car Park Site	0.00%	0.38%							
Commercial Land (with buildings that add no value)	0.04%	0.400/	0.000	0.000					
Residential Hotel/Motel/Apartment Hotel Complex	0.000	0.12%	0.43%	0.10%					
Day Care Centre for Children	0.02%	0.400/	0.000	0.4004					
Member Club Facility	0.00%	0.12%	0.06%	0.19%	0.000				
Vacant Residential Dwelling Site/Surveyed Lot	0.01%	0.04%		0.19%	0.22%				
Halls and Service Clubrooms		0.03%	0.18%	0.10%					
Boarding House		0.03%		0.19%		0.79%			
Fire Station Facility	0.00%					0.40%			1.49%
Low Rise Office Building									2.99%
Guest Lodge/Back Packers/Bunkhouse/Hostel	0.00%								

Movedist	(bin)
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Understanding Catchments

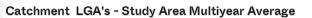


D Place Intelligence

Key Insights Audience Origins

OF ALL ACTIVITY IN THE PRECINCT IS GENERATED BY LOCALS (INCLUDING DESTINATIONS AND MOVEMENT NETWORKS) BASED ON 4 YEARS OF CONTINUOUS DATA. **3** OF ALL ACTIVITY IN THE PRECINCT IS GENERATED BY LOCALS (LIMITED TO DESTINATIONS) BASED ON 4 YEARS OF CONTINUOUS DATA.

Metric	Value		Insight		
Precinct Average - Percent Local	37% - Destinations Only		37% - Destinations Only		63% of all end destination users in the precinct come from other LGA's within Victoria.
Precinct Average - Percent Residents by Weekend & Weekends in End Destinations	38% Local on Weekends		The difference between weekdays shows that the precinct is highly dependent on outside council visitors.		
Primary External LGA of origin	Port Phillip - 7% Glen Eira -5.3% Melbourne- 5.07% Moroondara - 3.4%		Competing offers in Port Phillip and Glen Eira may have a significant impact the cen- ters economic resilience if these audiences no longer come.		
Percent of Origins by State	Victoria New South Wales Queensland South Australia Western Australia Tasmania ACT Northern Territory	88.92% 4.83% 2.95% 1.23% 0.94% 0.64% 0.33% 0.15%	Victoria will likely remain the primary origin state in the coming decade.		



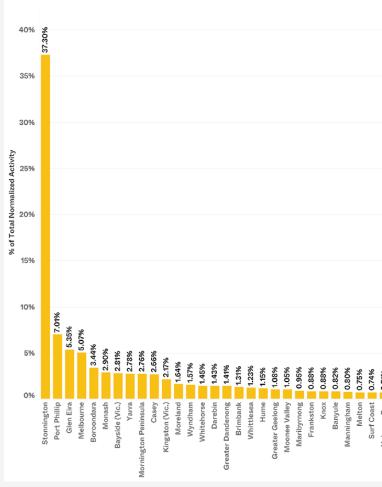


Image: Origins Rank by LGA for Activity in Land Parcels

Multi-year origins by LGA averaged across the study area are shown in the chart above. This averaged view reveals the distributions of origins for audiences seen in end destinations within the precinct. This model excludes activity in the road network.

										Lg	a N	ame	21															
0.71%	0.67%	0.54%	0.53%	0.50%	0.40%	0.23%	0.22%	0.21%	0.21%	0.19%	0.17%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.11%	0.10%	%60.0	%60.0	Moira 0.08%	0.08%	0.08%	0.07%	0.07%	0.06%	0.06%
Hobsons Bay 📙 0.71%	Maroondah 📙 0.67%	Cardinia 0.54%	Bass Coast 0.53%	Yarra Ranges 0.50%	Unincorporated Vic 0.40%	Ballarat 0.23%	Nillumbik 0.22%	Greater Bendigo 0.21%	East Gippsland 0.21%	Alpine 0.19%	Hepburn 0.17%	Latrobe (Vic.) 0.11%	Wellington 0.11%	Mitchell 0.11%	Wangaratta 0.11%	Campaspe 0.11%	Colac Otway 0.11%	Baw Baw 0.11%	Southern Grampians 0.10%	Macedon Ranges 0.09%	Mansfield 0.09%	Moira	Queenscliffe 0.08%	Warrnambool 0.08%	Moyne 0.07%	Greater Shepparton 0.07%	South Gippsland 0.06%	Moorabool 0.06%

Origins by Year and Month by LGA

Catchment LGA's - Study Area Multiyear Average

Catchment L	GA's - 51	tudy Are	a Multiye	ear Avera	age																Datatio																		
						2019	9											2020)		Dateor	me								2021							20	022	
Lga Name21 Stonnington	January 43.3429%	February 40.9957%	March 41.2591%		May 44.7152%	June 45.7047%			September 44.3884%			December Ja 42.2223% 42													January Fe 31.9282%				ay June 9755% 31.77						40.2712% 3	January Febru 32.7844% 28.46	Jary March 603% 26.4571%	April 27.7055%	May June 33.6299% 32.5311%
Port Phillip	9.2744%		9.1553%	9.0380%	8.1993%	7.8362%								6.3355%	6.3226%	6.7544%	5.6681%	5.1471%	4.7055%	4.8486%	6.7422%	4.8866%	6.7347%	5.9626%	6.5294%	6.4313%	5.8715% 5	.9605% 5.	5709% 6.51	3% 5.8307%			5.1602%				5313% 6.3573%		5.7676% 3.9915%
Glen Eira Melbourne	3.9456%	4.5606%	5.2704% 6.8242%	3.8713%	4.2654%	5.0680%	5.1047% 6.3923%	4.2259% 6.2308%	4.0354%	3.9367% 5.9249%	4.5133%				5.6768% 4.3277%	3.1606%		5.0680%	4.4807%	2.9275%	3.7295%	5.5191% 5.6084%					91010-00		6.29 6877% 4.56			5.1810%	5.1293% 3.3865%				1821% 6.6582% 4536% 4.1084%		5.7720% 7.9465% 3.4257% 2.7018%
Boroondara	3.0605%	2.5190%	2.4600%	2.5110%	2.8205%	2.2322%	2.5189%	2.4214%	3.4913%	2.6711%	1.9838%	1.7190%	2.1554%	3.3614%	2.4813%	1.7743%	1.5359%	2.0068%	1.8688%	1.2232%	1.3869%	1.8215%	3.0921%	4.3189%	3.3565%	3.1424%	3.5892% 3	.4747% 3.	4728% 3.24	3% 11.3011%	8.8249%	8.0783%	6.7123%	2.8068%	1.4803%	2.3867% 3.5	5258% 3.6705%	3.3079%	3.0012% 1.8668%
Monash Bounida (Min.)	2.1488%	2.6468%	2.4149% 3.6874%	2.4960%	2.2879%	1.8696%	2.0409%	2.0225%	2.0430%	1.6816%	1.9618%				3.5404% 3.2188%	1.7135%	1.8307%	2.6350%	1.7960%	1.2831%	1.2177%	2.3139%	2.3266%	2.3869%					9391% 2.55 826% 3.76			9.0540%	10.6821%	3.3944%			7352% 3.4178% 3665% 3.6314%	3.4482% 3.7171%	4.8781% 2.4250% 3.2550% 4.5106%
Bayside (Vic.) Yarra	4.1017%	3.8929%	3.3284%	4.1141%	4.3267%	4.2003%	3.6513%	3.6090%	4.4016%	5.9241%	4.7315%	and the second	ALCORED S	2010 (SPR)	1.3449%	2010 (100 (100 (100 (100 (100 (100 (100	A CONTRACTOR OF A	2.3332%	3.3407%	3.1906%	3.1037%	1.9782%	1.8623%	1.5185%	and the second second second	States in Frank	and the second second second	100 C 100	4941% 1.63		1 Contraction of the second	1.6605%	1.4343%	A CARGO CARGO CONTRACTOR	and the second	Contraction (Section 1997)	7967% 1.6188%	Contraction of the second second	1.9609% 1.5680%
Mornington Peninsu.	1.2857%	1.2989%	0.8676%	1.0063%	1.2764%	1.0337%	0.8372%	0.9528%	0.6309%	0.9168%	0.7392%			and the second second	2.4977% 2.9604%	1.9588%		3.2862%	2.2652%	2.3950% 2.4038%	2.7073% 2.3389%	3.8170% 3.3963%	4.7361%	5.2106% 3.5150%					2115% 3.77 1138% 3.38			3.9884%	5.1939% 2.6562%				9465% 3.8863% 9963% 3.8477%		3.5597% 4.1892% 2.8255% 2.8997%
Casey Kingston (Vic.)	1.8089%	1.6313%	1.1859%	1.9865%	1.1654%	1.1513%	1.5267%	1.4619%	2.0730%	1.4412%	1.8312%				2.8881%	1.4437%	1.5845%	2.2846%	2.0609%	1.4277%	1.3694%	2.4127%	2.5773%	2.9070%					0885% 3.66			2.6299% 2.6940%	2.5541%	1.7610%	1000 C	Contraction of the second	3715% 2.6524%		2.8255% 2.8997% 2.2241% 2.0091%
Moreland	1.9359%	1.5303%	1.5804%	1.3343%	1.4267%	2.0106%	1.8822%	1.4091%	1.5374%	1.6331%	1.8477%					2.0646%	1.5980%	1.2538%	1.2907%	1.0727%	1.2486%	1.7975%	1.4681%	1.7335%					4575% 1.57			1.3148%	1.5240%				7578% 1.7696%		1.5863% 1.3287%
Wyndham Whitehorse	1.1479% 0.8196%	1.0656%	0.8426%	1.2651%	1.4703% 1.1075%	1.3120%	1.0525%	1.1732%	1.7261% 0.8132%	2.0110%	1.9452% 0.9212%	and the second	The second s			0.9963%	1.2379%	1.5257%	1.5402%	1.2217%	0.8018%	1.4471% 1.5739%	1.6258% 1.6621%	1.4954%		1000 C	Contraction of the second		1420% 1.91 1497% 1.74		Contraction of the second second	1.1111%	1.5897% 1.5575%	2.3459%			5886% 2.0614% 3450% 2.0661%		1.8449% 2.0376% 1.6338% 1.4461%
Darebin	1.3001%	1.4366%	1.5657%	1.1051%	1.4010%	1.6520%	2.4091%	1.8384%	2.3124%	2.4965%	2.6500%				1.3527%	1.2129%	1.1733%	1.4683%	1.8264%	1.5018%	1.3879%	1.4801%	1.6071%	1.6494%					945% 1.06			0.4693%	0.4763%	1.0048%			2809% 1.3856%		1.3132% 3.2756%
Greater Dandenong Brimbank	1.7900%	1.2717%	1.3171%	0.9361%	1.1071% 0.9626%	1.2110%	1.0696%	0.8609%	1.3817% 0.8653%	1.6908% 0.8375%	1.0125%			1.9130% 1.8846%	1.8828%	1.0259%	1.0129%	1.6558%	1.0735% 1.0989%	1.1487%	0.7975%	1.3611%	1.3631% 1.5846%	1.4546%					7819% 1.75 5384% 1.59			0.9921%	1.0646% 1.2573%	1.4684% 1.6946%	A CONTRACTOR		1.7284% 2019% 1.6820%	a and a second	3.0569% 0.9813% 1.3070% 0.8160%
Whittlesea	0.5634%	1.0808%	1.1372%	0.8385%	0.9263%	0.8516%	0.7692%	0.6853%	1.1081%	0.6178%	0.9389%	2.0104%		2.3456%	1.6252%	1.2899%	1.5628%	1.3728%	1.7634%	1.0898%	1.1928%	1.4188%	1.8047%	2.0591%	1.2086%	1.4799%			4016% 1.24		0.8197%	0.7323%	0.8628%	1.0782%			5023% 2.0722%	1.4587%	1.5650% 1.5166%
Hume Greater Geelong	1.1601%	0.9574%	0.5943%	0.5493%	0.7760%	0.8800%	0.8154%	0.8048%	0.8175%	0.6854%	0.8128%				1.5658%	1.3742%	1.2364%	0.9802%	1.1462%	1.1322%	1.2260%	1.3069%	1.3696%	0.9626%	1.1170%	1.			0110% 0.844			0.8792%	0.6847%	1.7279%	and the second sec		1889% 1.3542% 1057% 1.1220%		1.0273% 1.6946% 0.9685% 0.6730%
Moonee Valley	0.7886%	0.7161%	1.0780%	0.6412%	0.9344%	0.7198%	0.6846%	0.8830%	0.6278%	0.8218%	1.7285%	1.0308%	1.0498%	1.3169%	0.7388%	0.5183%	0.6523%	0.8322%	0.6487%	0.9831%	0.9233%	1.2804%	1.4760%	1.0799%	1.3020%	1.6538%	1.4235% 0	.9790% 1.0	600% 0.94	2% 1.3052%	1.1660%	0.6125%	0.8146%	1.2503%	1.1416%	1.2066% 1.1	1402% 1.4220%	1.2469%	0.9017% 0.5775%
Maribyrnong Frankston	1.1324%	1.3848%	1.4943%	0.9408%	1.0759%	1.3654%	1.0254%	1.2317%	0.6887%	0.8363%	1.0031%		Second Second			0.8824%		0.8575%	1.0234%	0.8479%	0.5179%	0.5776%	0.8183%	0.7726%					8593% 0.38 2573% 1.12			0.3624%	0.7673%	0.9695%	100000000		9935% 1.1923% 2831% 1.4324%		0.7323% 0.8648%
Frankston Knox	0.8269%	0.8312%	0.4613%	0.4913%	0.5882%	0.7968%	0.8454%	0.6939%	0.4891%	0.7048%	0.5345%						0.8244%	1.0433%	1.2877%	1.6128%	0.8566%	0.7669%	0.9804%	1.0048%					2573% 1.12 3684% 0.89			0.9491%	0.9790%	0.8798%			3775% 1.5852%		1.3565% 0.9497%
Banyule	0.4327%	0.8663%	1.1662%	0.8312%	0.8612%	0.9580%	0.7933%	0.9289%	0.9999%	1.1816%	0.9145%					0.9238%		0.8955%	0.5859%	0.4045%	0.4518%	0.5196%	0.6906%	0.7064%					6851% 0.53			0.1859%	0.2693%	0.9044%			9517% 1.0307% 1008% 1.2861%		1.0606% 1.4934%
Manningham Melton	0.5966%	0.6875%	0.5264%	0.4305%	0.6698%	0.5557%	0.6126%	0.4326%	0.4683%	0.3446%	0.5730%					0.9859%		0.8685%	0.9871%	0.8124%	0.6922%	0.6354%	0.8974%						2210% 0.96 7788% 1.190			0.7226%	1.5300%				008% 1.2861% 0554% 1.1096%		1.0708% 1.5194%
Surf Coast	0.5063%	0.2704%	0.2684%	0.3537%	0.4418%	0.0596%	0.0635%	0.1843%	0.0454%	0.1206%	0.1668%				1.0138%	0.9171%	1.0029%	1.1274%	1.2943%	0.8552%	1.0134%	1.2079%	1.4755%	1.7372%					2487% 0.80			0.6799%	0.8948%				5730% 1.1088%		0.9090% 1.2500%
Hobsons Bay Maroondah	0.4920%	0.7774%	0.7032%	0.8417%	0.6802%	0.5687%	0.7408%	0.7925%	0.6167%	0.6628%	0.9573%				0.6803%	0.3958%	0.3946%	0.4480%	0.4283%	0.1873%	0.5265%	0.7966%	0.9157% 0.8376%	0.7118%					9357% 0.55 9947% 0.84			0.3651%	0.6655%	0.5408%			1840% 0.9306% 0224% 0.7515%	0.8801% 0.6510%	0.7547% 0.8762% 0.8824% 1.9600%
Cardinia	0.2737%	0.2290%	0.1964%	0.4274%	0.4918%	0.8997%	0.4408%	0.3898%	0.2022%	0.2001%	0.3602%					0.3224%		0.3464%	0.2575%	0.2360%	0.3835%	0.5147%	0.5904%	0.6553%		100000000000000000000000000000000000000			1272% 0.99			0.6448%	0.3089%	0.8457%			4911% 0.7250%		0.4792% 0.4771%
Bass Coast Yarra Ranges	0.4630%	0.3453%	0.2766%	0.2285%	0.1534%	0.1463%	0.0555%	0.0560%	0.0625%	0.0523%	0.1250%		States and s					0.7361%	0.6481%	0.8869%	1.0594%	1.1895%	1.0623%	0.9493%		100000000000000000000000000000000000000	100000000000000000000000000000000000000		7833% 0.764 A115% 0.43			0.4276%	0.6015%	0.3272%			5864% 0.4864% 4549% 0.5025%		0.4264% 0.5343% 0.7225% 0.8398%
Unincorporated Vic	0.0798%	0.1713%	0.1883%	0.2581%	0.1678%	0.3903%	0.4950%	0.5786%	0.4725%	0.2753%	0.1528%	0.0613%	0.0176%	0.3578%	0.4292%	0.4804%	0.5395%	0.4780%	0.4430%	0.4719%	0.3916%	0.4821%	0.6398%	0.3705%	0.1658%	0.7029%	0.7921% 0	0.6512% 0.	8921% 0.87	4% 1.0175%	1.1358%	1.0895%	0.7601%	0.1598%	0.0800%	0.0906% 0.1	1691% 0.1229%		0.0778% 0.0897%
Ballarat Nillumbik	0.3260%	0.2094%	0.2183%	0.2051%	0.2412%	0.0946%	0.1242%	0.1175%	0.1702%	0.1300%	0.3855%					A CONTRACTOR OF		0.2422%	0.1019%	0.0252%	0.0301%	0.1100%	0.1258%	0.1433%	1.		1001 (0001 C)		1293% 0.08 3031% 0.29			0.1174%	0.0953%		and the second se		4087% 0.4197% 7088% 0.5502%		0.2650% 0.8089%
Greater Bendigo	0.1586%	0.2561%	0.2360%	0.3611%	0.3172%	0.0793%	0.1215%	0.1041%	0.1101%	0.1081%	0.1222%					0.1156%		0.2786%	0.2820%	0.2863%	0.1844%	0.2219%	0.0700%				A CONTRACTOR OF		1704% 0.13			0.2153%	0.2409%				2252% 0.3498%		0.2937% 0.2265%
East Gippsland	0.1719%	0.1082%	0.1211%	0.0408%	0.0711%	0.0117%	0.0445%	0.0361%	0.0252%	0.0108%	0.0200%							0.3331%	0.1500%	0.2103%	0.1865%	0.2373%		0.3793%					3631% 0.518 4742% 0.56			0.2719%	0.1867%				3175% 0.3313% 1765% 0.2194%		0.2908% 0.2620%
Alpine Hepburn	0.2094%	0.2453%	0.2313%	0.2169%	0.2875%	0.1934%	0.1992%	0.0724%	0.1915%	0.0874%	0.1053%		and the second		Sector Sector Sector			0.1924%	0.0171%	0.0839%	0.0689%	0.0612%	0.3338%						4742% 0.36 2702% 0.35			0.1730%	0.0300%		0.0219%		2359% 0.1974%	0.2532%	0.1148% 0.1493%
Latrobe (Vic.)	0.0568%	0.0615%	0.0407%	0.0316%	0.0670%	0.1331%	0.0380%	0.0327%	0.0289%	0.1812%	0.0310%		Statistics .		CONTRACTOR OF T	0.0641%		0.1259%	0.0678%	0.0390%	0.0845%	0.0576%	0.1242%	0.1473%					.1194% 0.10			0.0612%	0.1322%				1082% 0.2167%	State State State State	0.1122% 0.2604%
Wellington Mitchell	0.0803%	0.1253%	0.0461% 0.2679%	0.0160%	0.0200%	0.0690%	0.0262% 0.1793%	0.0268%	0.0256%	0.1270% 0.0171%	0.0276%	A CONTRACTOR OF	CAMERICA (1997) 1997		0.0750% 0.0718%	0.0148% 0.0341%	0.0788%	0.0231% 0.0314%	0.0256%	0.0680%	0.2254%	0.1119% 0.0331%	0.0379%	0.0813%					1283% 0.08 1009% 0.10			0.0476%	0.1930% 0.1673%	0.3092% 0.2184%	and the second se		1373% 0.1332% 0646% 0.1635%		0.0793% 0.0726% 0.3123% 0.3188%
Wangaratta	0.0480%	0.0215%	0.0190%	0.0147%	0.0133%	0.0237%	0.0472%	0.0694%	0.0391%	0.1107%	0.1052%							0.0349%	0.0480%	0.1054%	0.0511%	0.0326%	0.0430%	0.2172%					1787% 0.12			0.0856%	0.3425%				0.1633%	C	0.0836% 0.0755%
Campaspe Colac Otway	0.0277% 0.1357%	0.0222%	0.0147% 0.2263%	0.1843%	0.0099%	0.0172%	0.0049% 0.0532%	0.0035%	0.0526%	0.0080%	0.0087%				0.0539% 0.1440%	0.0040%	A REPORT OF A REPORT OF A	0.0154%	0.0617% 0.0790%	0.0424%	0.0452%	0.0301%	0.0597% 0.1748%	0.2250% 0.2716%					1991% 0.14 1833% 0.14		0.5006%	0.1117% 0.0409%	0.3569%	0.1324%	0.0222%		0382% 0.0595% 1036% 0.1177%	0.0989% 0.1051%	0.1085% 0.0485% 0.0754% 0.1149%
Baw Baw	0.2080%	0.0308%	0.0208%	0.0107%	0.0463%	0.1011%	0.0309%	0.1549%	0.0439%	0.0565%	0.0797%							0.0808%	0.1221%	0.0893%	0.0307%	0.0214%							0.06			0.0446%	0.0496%				0791% 0.1136%		0.1290% 0.1363%
Southern Grampians Macedon Ranges	0.1906%	0.0072%	0.0015%	0.0051%	0.0030%	0.0104%	0.0011%	0.0016%	0.0098%	0.0036%	0.0058%			392300535				0.2814%	0.2973%	0.3278%	0.3134%	0.3170%	0.1900%	0.0267%	and a second of the		CONTRACTOR OF A		1512% 0.10 0995% 0.05		1	0.1410%	0.0377%	100 C 100			0963% 0.0663% 1704% 0.1850%		0.1199% 0.0108% 0.1785% 0.1335%
Mansfield	0.0174%	0.0286%	0.0507%	0.0379%	0.0826%	0.0590%	0.0853%	0.0493%	0.0904%		0.0284%							0.0724%	0.0810%	0.0744%	0.0336%	0.1035%		0.0918%					1286% 0.14			0.1761%	0.1748%		and the second second		0.0572%		0.0251% 0.0404%
Moira Queenscliffe	0.0175%	0.0136%	0.0094%	0.0097%	0.0519%	0.0095%	0.0156%	0.0296%	0.0269%	0.0689%	0.0074%							0.0681%	0.0674%	0.0112%	0.0199%	0.0179%							3784% 0.47 1355% 0.07			0.0120%	0.0074%				0259% 0.1292% 0.1278%		0.0321% 0.0422% 0.0880% 0.0185%
Warmambool	0.1133%	0.0156%	0.0154%	0.0502%	0.1071%	0.0111%	0.0325%	0.0396%	0.0584%	0.0058%			and the second		and an and a state of the	0.0557%		0.0706%	0.0529%	0.0357%	0.0488%	0.0597%	0.0856%	0.1399%		Strange Strange	and the second second		1240% 0.04			0.0143%	0.0227%				1606% 0.1782%		0.0697% 0.0615%
Moyne Greater Shepparton	0.0131%	0.0651%	0.0064%	0.0045%	0.0102%	0.0177%	0.0103%	0.0009%	0.0006%	0.0084%	0.0046%		Contraction of the		0.0547% 0.0730%			0.0800%	0.0785%	0.0172%	0.0457%	0.0114%	0.1130%	0.0612%		10000			0930% 0.06 0307% 0.01			0.0962%	0.0832%	0.1027%			8840% 0.0662% 0706% 0.2068%	6 0.3317% 0 2094%	0.1724% 0.1588% 0.0822% 0.0566%
South Gippsland	0.0540%	0.1147%	0.0905%	0.0627%	0.1185%	0.0271%	0.0157%	0.0991%	0.0343%	0.0796%	0.0450%					0.0303%		0.0446%	0.0220%	0.0027%	0.0038%	0.0256%	0.0478%	0.0635%					1014% 0.100			0.0170%	0.0416%	0.0413%			0540% 0.0696%	6 0.0951%	0.0645% 0.0162%
Moorabool Northern Grampians	0.0357%	0.1362%	0.0512%	0.1199%	0.0319%	0.0195%	0.0408%	0.0330%	0.0134%	0.0098%	0.0125%							0.0561%	0.0781%	0.0960%	0.0635%	0.1269%	0.0748%						0740% 0.03			0.0346%	0.0823%				0327% 0.1556%		0.0667% 0.0647%
Northern Grampians Mount Alexander	0.0090%	0.1026%	0.0324%	0.0269%	0.2359%	0.0034%	0.0043%	0.0486%	0.0104%	0.0358%	0.0256%						0.0351%	0.0790%	0.1008%	0.0519%	0.0073%	0.0493%	0.1165%						0640% 0.04			0.0259%	0.0267%				0555% 0.0491%		0.0592% 0.0917%
Benalla	0.0230%	0.2175%	0.0339%	0.0527%	0.1460%	0.2561%	0.2372%	0.2464%	0.1826%	0.0446%	0.0146%							0.0091%	0.0145%	0.0117%	0.0391%	0.0103%	0.0214%	0.0156%					0115% 0.00			0.0073%	0.0077%				0.0081%		0.0069% 0.0324%
Horsham Murrindindi	0.0160%	0.0145%	0.0092%	0.0403% 0.0019%	0.0986%	0.1233%	0.2790%	0.1976%	0.2036%	0.0353%	0.0011%					0.0012%		0.0015%	0.0008%	0.0007%	0.0031%	0.0006%							0172% 0.000 1255% 0.07			0.0194%	0.0096%				0119% 0.0238% 0570% 0.0424%		0.1394% 0.0901% 0.0216% 0.0081%
Swan Hill	0.0069%	0.0149%	0.1034%	0.0066%	0.0028%	0.0108%	0.0026%	0.0081%	0.0031%	0.0037%		0.0040% 0	CONTRACTOR /		0.0789%	0.0052%	0.0458%	0.0062%	0.0418%	0.0037%	0.1583%	0.0319%	0.0992%	0.0232%	0.0139%	0.0113%	0.0528%	0.0187% 0.	0185% 0.05	4% 0.0030%	0.0100%	0.0135%	0.0075%				0.0532%		0.0299% 0.0226%
Indigo Corangamite	0.0065%	0.0209%	0.0343%	0.0125% 0.0092%	0.0267% 0.0148%	0.0900%	0.0652%	0.1358%	0.0960%	0.0759%	0.1632%						0.0045%	0.0091%			0.0014%	0.0022%	0.0070%	0.0097% 0.0106%					0155% 0.00 0686% 0.05	2% 0.0022% 2% 0.0420%		0.0098%	0.0052%	0.0086% 0.1644%			0187% 0.0190% 0330% 0.0525%		0.0201% 0.0733% 0.1860%
Mildura	0.0157%	0.0061%	0.0220%	0.0362%	0.0065%	0.0214%	0.0033%	0.0110%	0.0064%	0.0093%	0.0100%				0.0240%	0.0080%	0.0118%	0.0091%	0.0159%	0.0156%	0.0418%	0.0142%	0.0206%	0.0283%		0.0226%			0.054		0.0274%	0.0275%	0.0170%	0.1503%	0.0616%		0.0277%	0.0567%	0.0285%
Golden Plains Wodonga	0.0062%	0.0523%	0.0005%	0.0097%	0.0007%	0.0013%		0.0082%	0.0456%	0.2250%	0.0066%							0.0123% 0.0116%	0.0025%	0.0047%	0.0100%	0.0094%		0.0089%					0787% 0.03			0.0091%	0.0228%				0358% 0.0315% 0121% 0.0534%		0.0383% 0.0607%
Gleneig	0.0034%	0.0006%	0.0033%	0.0014%	0.0010%	0.0018%	0.0015%	0.0059%	0.0042%	0.0015%	0.0053%	0.0108% 0	0.0129%	0.0221%	0.0159%	0.0042%	0.0086%	0.0166%	0.0401%	0.0066%	0.0041%	0.0083%	0.0112%	0.0120%	0.0160%	0.0164%	0.0275%	0.0317% 0.	0165% 0.05	8% 0.0170%	0.0076%	0.0072%	0.0087%	0.0332%	0.0088%	0.0210% 0.0	0153% 0.0371%		0.1181% 0.2966%
Strathbogie Buloke	0.0011%	0.0012%		0.0026%	0.0023%	0.0005%	0.0005%	0.0006%	0.0035%	0.0013%		0.0009% 0						0.0625%	0.0565%	0.0126%	0.0037%	0.0121%	0.0193%	0.0163%					0256% 0.01			0.0070%	0.0034%	0.0031%			0.0370%	0.0224%	0.0118% 0.1177%
Gannawarra	0.0003%		0.0016%		0.0016%			0.0238%				0.0120% 0								0.0017%		0.0034%							0373% 0.02				0.0158%	0.0162%	0.0071% 0	0.0008% 0.0	0.00152% 0.0016%		0.0201% 0.0162%
Ararat			0.0223%		0.0110%		OOFCOM	0.00000	0.00176	0.0550%		0.0087% 0		0.0075% 0.0048%		0.0005%		0.0113%	0.0033%	0.0011%	0.0019%	0.0005%	0.0029%						0257% 0.04	3% 0.0205% 5% 0.0009%	0.0076%	0.0166%	0.0149% 0.0009%		0.0027% 0		0566% 0.0104% 0014% 0.0007%		0.0272% 0.0162%
Loddon Central Goldfields	0.0018%		0.0005%							0.0669%							0.0005%						0.0020%							5% 0.0009% 0% 0.0198%					0.00051%		0014% 0.0007% 0046% 0.0070%		0.0183%
Yarriambiack	0.0128%			0.000551	0.0001%		0.0006%	0.00500	0.0434%	0.00100							0.0001%		0.00085		0.0034%	0.0008%	0.0005%	0.000494		0.0001%				6% 0.0015%					0.0018%		008% 0.000W	0.0051%	
Pyrenees West Wimmera	0.0011%		0.0012%	0.0005%			0.0004%	0.0052%		0.0010%				0.0010%	0.0019%	0.0003%	0.0007%	0.0017%	0.0008%		0.0448%		0.0014%	0.0004%			0.0002% 0	0008% 0.0	002%		0.0008%	0.0004%	0.0008%	0.0051%	0.0058%		0022% 0.0007% 004% 0.0010%		
Hindmarsh				0.0053%		0.0038%				0.0009%	0.0011%	0.0005%					0.0006%						0.0003%		0.0001%				0.00					0.0014%	0.0006% 0	0.0007% 0.0			
Towong	0.0002%	0.0006%				0.0006%								0.0016%	0.0016%	0.0031%	0.0007%	0.0005%	0.0010%			0.0001%	0.0006%	0.0014%	0.0004%	0.0006%	0.0010% 0	.0055% 0	0011% 0.00	976				0.0002%		0.0009%	0.0014%	0.0002%	0.0009%



Understanding Parcel Footfall

Ranking Parcels by Total Footfall

A parcel demand map is used to index buildings across the study area. Bright, tall polygons represent the most visited locations over time. Dark red, low polygons are buildings with low footfall.



Precinct Usage by Type and Category

Туре

neral Purpose Factory

Retail Premises (single

Office Premises

occupancy)

Strata unit or flat

Detached Dwelling

mercial Develo

General Purpose Factory

General Purpose Wareho.. cafe

ecinct

Coles

Category 2	Sub category	
cafe	cafe	8,470
Food & Beverage	Bakery	1,364
	Cafes and Restaurants	284
Food & Beverage, Retail	Liquor,Hair/Beauty	1,138
bakery	bakery	42,342
Food & Beverage	Other Food	230,979
		5,721
	Bar	547
		213
Detail Exception D	Take Away	
Retail,Food & Beverage	Giftware,Cafes and Resta	
	Optometrist,Cafes and R	
bakery		2,962
cafe	cafe	9,634
restaurant	restaurant	61,299
cafe	cafe	4,634
restaurant	restaurant	270
bakery	bakery	380
. cafe	cafe	281
Other,Fashion,Retail,Foo		9,948
Food & Beverage	Cafes and Restaurants	309
Food & Beverage,Retail	Cafes and Restaurants,H	
Food & Beverage		4,389
-		
Fashion,Food & Beverage	Jeaneries/Streetwear/Su.	
	Jeaneries/Streetwear/Su.	
Food & Beverage,Retail		2,962
Retail,Food & Beverage	Accessories/Costume Je	
Food & Beverage	Cafes and Restaurants	3,921
	Pub	793
	Bar	178
Pub/Tavern/Hotel/Licens	Pub/Tavern/Hotel/Licens	2,015
Accommodation,Food &	Accommodation - Hotel,	· · · · · · · · · · · · · · · · · · ·
cafe		1,617
Fashion,Food & Beverage	Apparel Mens,Take Away	422
Food & Beverage	Cafes and Restaurants	20,275
Develage		2,862
		2,162
	Cafes and Restaurants,Ta.	
	Take Away	1,246
	Bakery	1,090
	Liquor	343
Food & Reverage Eachion	Taka Away Annaral Ladiae	
Food & Beverage	Bakery	1,196
restaurant	restaurant	566
Food & Beverage	Cafes and Restaurants	637
Food & Beverage	Cafes and Restaurants	995
	Bar	498
	Other Food	449
	Bar,Cafes and Restaurants	211
Food & Beverage,Retail	Cafes and Restaurants,H	650
Food & Beverage		4,160
······		2,665
Food & Beverage,Retail	Pub,Other Retail Services	•
	Pub/Tavern/Hotel/Licens	-
		664
. Food & Beverage	Cafes and Restaurants	
bakery		1,483
Food & Beverage	Cafes and Restaurants	21,437
	Cafes and Restaurants,Bar	3,785
	Bar,Cafes and Restaurants	3,417
	Bar	3,417
	Bar	3,417 3,368 2,834
	Bar Take Away	3,417 3,368 2,834 1,047
	Bar Take Away Cafes and Restaurants,O	3,417 3,368 2,834 1,047
	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor	3,417 3,368 2,834 1,047 769
Food & Ravarson Eachier	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res Liquor Bakery	3,417 3,368 2,834 1,047 769 289 130
Food & Beverage,Fashion	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res Liquor Bakery Cafes and Restaurants,Je	3,417 3,368 2,834 1,047 769 289 130 370
Food & Beverage,Fashion Food & Beverage,Retail	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,Je Cafes and Restaurants,O	3,417 3,368 2,834 1,047 769 289 130 370 1,211
Food & Beverage,Retail	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res Liquor Bakery Cafes and Restaurants,Je Cafes and Restaurants,O Bakery,Other Retail Servi	3,417 3,368 2,834 1,047 769 289 130 370 1,211 759
Food & Beverage,Retail Retail,Food & Beverage	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res Liquor Bakery Cafes and Restaurants,Je Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio	3,417 3,368 2,834 1,047 769 289 130 370 1,211 759 243
Food & Beverage,Retail Retail,Food & Beverage . Food & Beverage	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,Je Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio Cafes and Restaurants	3,417 3,368 2,834 1,047 769 289 130 370 1,211 759 243 2,509 28 28 28 28 28 28 28 28 28 28
Food & Beverage,Retail Retail,Food & Beverage - Food & Beverage Food & Beverage	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio Cafes and Restaurants Cafes and Restaurants	3,417 3,368 2,834 1,047 769 289 130 370 1,211 759 243 2,509 6,754 2,509
Food & Beverage,Retail Retail,Food & Beverage . Food & Beverage	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants,H	3,417 3,368 2,834 1,047 769 289 130 370 1,211 759 243 2,509 6,754 2,938
Food & Beverage,Retail Retail,Food & Beverage - Food & Beverage Food & Beverage	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio Cafes and Restaurants Cafes and Restaurants	3,417 3,368 2,834 1,047 769 289 130 370 1,211 759 243 2,509 6,754 2,938
Food & Beverage,Retail Retail,Food & Beverage - Food & Beverage Food & Beverage	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants,H	3,417 3,368 2,834 1,047 769 289 130 370 1,211 759 243 2,509 6,754 2,938 8 10 10 10 10 10 10 10 10 10 10
Food & Beverage,Retail Retail,Food & Beverage - Food & Beverage Food & Beverage	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants,H	3,417 3,368 2,834 1,047 769 289 130 370 1,211 759 243 2,509 6,754 2,938 2,403
Food & Beverage,Retail Retail,Food & Beverage - Food & Beverage Food & Beverage	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O Bakery,Other Retail Servi. Electrical/Communicatio Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants,H Take Away,Other Food,H	3,417 3,368 2,834 1,047 769 289 130 370 270 289 130 370 243 2,509 6,754 2,938 2,938 2,403 0K 50K 100K 150K 200K 250K Normalized Activity \overline{r}
Food & Beverage,Retail Retail,Food & Beverage Food & Beverage Food & Beverage Food & Beverage,Retail	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,Je Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants,H Take Away,Other Food,H	3,417 3,368 2,834 1,047 769 289 130 370 1,211 759 243 2,509 6,754 2,938 2,403 0K 50K 100K 150K 200K 250K Normalized Activity =
Food & Beverage,Retail Retail,Food & Beverage Food & Beverage Food & Beverage,Retail Food & Beverage,Retail	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communication. Electrical/Communication. Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants.H Take Away,Other Food,H Take Away Liquor,Cafes and Restaur	3,417 3,368 2,834 1,047 769 289 130 370 1,211 1,211 759 243 2,509 6,754 2,938 2,403 0K 50K 100K 150K 200K 250K Normalized Activity = 381 3,762
Food & Beverage,Retail Retail,Food & Beverage Food & Beverage Food & Beverage,Retail Food & Beverage,Retail	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants,H Take Away,Other Food,H Take Away Liquor,Cafes and Restaur	3,417 3,368 2,834 1,047 769 289 130 370 1,211 1,211 759 243 2,509 6,754 2,938 2,403 0K 50K 100K 150K 200K 25∪K Normalized Activity - 381 3,762 339 0
Food & Beverage,Retail Retail,Food & Beverage Food & Beverage Food & Beverage,Retail Food & Beverage,Retail	Bar Take Away Cafes and Restaurants,O., Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O., Bakery,Other Retail Servi Electrical/Communicatio. Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants,H., Take Away,Other Food,H., Take Away Liquor,Cafes and Restaur., restaurant Other Retail Services,Tak	3,417 3,368 2,934 1,047 769 289 130 370 1,211 759 243 2,509 6,754 2,938 2,403 0K 50K 100K 150K 200K 250K Normalized Activity = 3,762 3,762 3,762 1,343
Food & Beverage,Retail Retail,Food & Beverage Food & Beverage Food & Beverage,Retail Food & Beverage,Retail	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,Je Cafes and Restaurants,O Bakery,Other Retail Servi. Electrical/Communicatio Cafes and Restaurants Cafes and Res	3,417 3,568 2,834 1,047 769 289 130 370 141 759 243 2,938 2,938 2,403 0K 50K 100K 150K 200K 250K Normalized Activity = 3376 3,762 339 1,343 1,337
Food & Beverage,Retail Retail,Food & Beverage Food & Beverage Food & Beverage,Retail Food & Beverage,Retail	Bar Take Away Cafes and Restaurants,O., Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O., Bakery,Other Retail Servi Electrical/Communicatio. Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants,H., Take Away,Other Food,H., Take Away Liquor,Cafes and Restaur., restaurant Other Retail Services,Tak	3,417 3,368 2,834 1,047 769 289 130 370 249 130 370 243 2,509 6,754 2,938 2,403 0K 50K 100K 150K 200K 250K Normalized Activity = 3762 339 1,343 1,343 1,034
Food & Beverage,Retail Retail,Food & Beverage Food & Beverage Food & Beverage,Retail Food & Beverage,Retail	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,Je Cafes and Restaurants,O Bakery,Other Retail Servi. Electrical/Communicatio Cafes and Restaurants Cafes and Res	3,417 3,568 2,834 1,047 769 289 130 370 141 759 243 2,938 2,938 2,403 0K 50K 100K 150K 200K 250K Normalized Activity = 3376 3,762 339 1,343 1,337
Food & Beverage,Retail Retail,Food & Beverage Food & Beverage Food & Beverage,Retail Food & Beverage,Retail Food & Beverage,Fashion restaurant Retail,Food & Beverage	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,Je Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants,H Take Away,Other Food,H Take Away Liquor,Cafes and Restaur restaurant Other Retail Services,Tak Music/Video/Games,Opt	3,417 3,368 2,834 1,047 769 289 130 370 289 130 370 243 2,509 243 2,509 6,754 2,938 2,403 0K 50K 100K 150K 200K 200K 250K Normalized Activity = 381 3,762 339 3,762 340 3,762 350 370 370 370 370 370 370 370 37
Food & Beverage,Retail Retail,Food & Beverage Food & Beverage Food & Beverage,Retail Food & Beverage,Retail Food & Beverage,Fashion restaurant Retail,Food & Beverage Retail,Food & Beverage,F	Bar Take Away Cafes and Restaurants,O Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O Bakery,Other Retail Servi Electrical/Communicatio Cafes and Restaurants Cafes and Restaur	3,417 3,368 2,834 1,047 769 289 130 370 289 130 370 243 2,509 6,754 2,938 2,403 0K 50K 100K 150K 200K 200K 200K 200K 200K 250K Normalized Activity $=$ 337 3,762 339 1,343 1,337 1,034 3,66 4 4 5 5 100K 100K 150K 200K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 250K 100K 150K 200K 250K
Food & Beverage,Retail Retail,Food & Beverage Food & Beverage Food & Beverage,Retail Food & Beverage,Retail Food & Beverage,Fashion restaurant Retail,Food & Beverage Retail,Food & Beverage,F	Bar Take Away Cafes and Restaurants,O., Take Away,Cafes and Res. Liquor Bakery Cafes and Restaurants,O., Bakery Cafes and Restaurants,O., Electrical/Communicatio. Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants Cafes and Restaurants,H., Take Away,Other Food,H., Take Away Liquor,Cafes and Restaur., restaurant Other Retail Services,Caf., Music/Video/Games,Opt., Hair/Beauty,Bar Footwear,Cafes and Rest.,	3,417 3,368 2,834 1,047 769 289 130 370 289 130 370 243 2,509 6,754 2,938 2,403 0K 50K 100K 150K 200K 200K 200K 200K 200K 250K Normalized Activity $=$ 337 3,762 339 1,343 1,337 1,034 3,66 4 4 5 5 100K 100K 150K 200K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 100K 150K 200K 250K 250K 100K 150K 200K 250K



Understanding Parcel Footfall

Ranking Parcels by Total Footfall

A parcel demand map is used to index buildings across the study area. Bright, tall polygons represent the most visited locations over time. Dark red, low polygons are buildings with low footfall.



Coles

REMORN



Pub/Tavern/He Licensed Club/ Food & Bever staurant/Li Food & Beve estaurant/Nightclub Pub/Tavern/ Retail Premises (multiple . Food & Bever

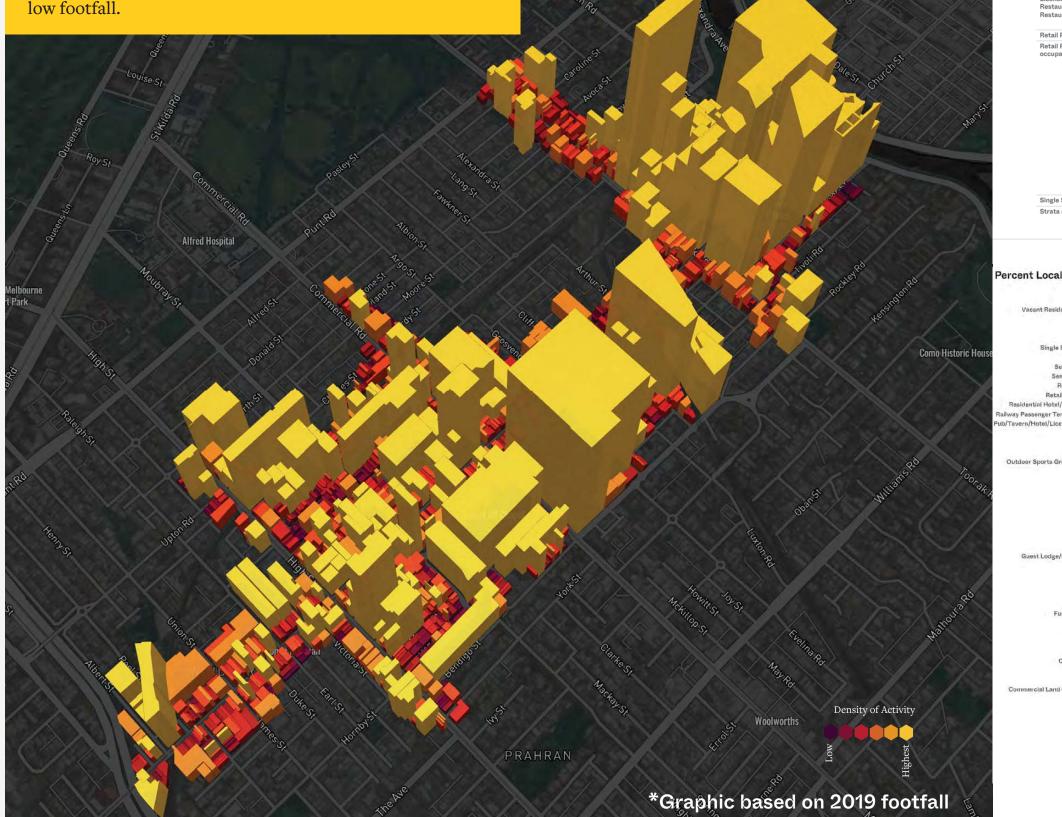
Retail Premises (single

Food & Beve Food & Bever

Retail,Food & Single Strata Unit/Villa U.. Food & Bever Strata unit or flat Food & Beve Food & Bever

Percent Local by Type

Type Vehicle Sales Centre lling Site/Surveyed Lot Vacant Land University Strata unit or flat Single Strata Unit/Villa Unit/Townhouse Shopping Centre Serviced Apartments/Holiday Units Semi-Detached/Terrace/Row House Retail Premises (single occupancy) Retail Premises (multiple occup Residential Hotel/Motel/Apartment Hotel Complex way Passenger Terminal Facilities (including statio.. /Tavern/Hotel/Licensed Club/Restaurant/Licensed. Private Hosp Place of Worship Parcels Outdoor Sports Grounds town or suburban facilities Office Premises Multi-Storey Car Park Mixed Use Occupation Member Club Facility Market Stall Low Rise Office Building Individual Flat Individual Car Park Site Health Clinic Back Packers/Bunkhouse/Hoste Ground Level Parking Government School Gould Level Parking General Purpose Warehouse General Purpose Factory Fuel Outlet/Garage/Service Station Fire Station Facility Electricity Substation/Terminal Detached Dwelling Day Care Centre for Children ned Strata Unit/Tow Community Health Centre Community Facility t (with buildings that add no value) Commercial Development Site Boarding House Residential Investment Flats Parks and Gardens National Company Retail Library/Archives Halls and Service Clubrooms



Category 2	Sub category				
Food & Beverage	Bakery	1,196			
restaurant	restaurant	566			
Food & Beverage	Cafes and Restaurants	637			
Food & Beverage	Cafes and Restaurants	995			
	Bar	498			
	Other Food	449			
	Bar,Cafes and Restaurants	211			
Food & Beverage,Retail	Cafes and Restaurants,H	650			
Food & Beverage	Pub	4,160			
	Liquor	2,665			
Food & Beverage,Retail	Pub,Other Retail Services	3,757			
Pub/Tavern/Hotel/Licens	Pub/Tavern/Hotel/Licens	2,458			
Food & Beverage	Cafes and Restaurants	664			
bakery	bakery	1,483			
Food & Beverage	Cafes and Restaurants	21,437			
	Cafes and Restaurants,Bar	3,785			
	Bar,Cafes and Restaurants	3,417			
	Bar	3,368			
	Take Away	2,834			
	Cafes and Restaurants,O	1,047			
	Take Away,Cafes and Res	769			
	Liquor	289			
	Bakery	130			
Food & Beverage, Fashion	Cafes and Restaurants,Je	370			
Food & Beverage,Retail	Cafes and Restaurants,O	1,211			
	Bakery,Other Retail Servi	759			
Retail,Food & Beverage	Electrical/Communicatio	243			
Food & Beverage	Cafes and Restaurants	2,509			
Food & Beverage	Cafes and Restaurants	6,754			
Food & Beverage,Retail	Cafes and Restaurants,H	2,938			
		2,403			

		69.48%		-	30.5	2%
		73.72%	-	and the owner of the	26	.28%
		92.6	4%		-	7.36%
	-	80.30%				19.70%
	42.82%			57.18%		-
	45.00%	-		55.00%	1. A.	
	59.3	77%	and the owner of the		40.23%	
		78.64%		And Personnel And		21.36%
	61.	70%			38.30%	
_		69.41%		-	30.5	9%
		68.63%			31.37	1%
		80.95%				19.05%
		84.17%			-	15.83%
		72.62%			27	.38%
	62	.24%		C	37.76%	-
_	57.68	396		Sector Sector	42.32%	
-	53.09%	(46	.91%	
	63	3.04%			36.96%	Property and party of
		67.49%			32.51	%
	58.6	9%			41.31%	
_		78.45%		and the second division of the second divisio	and the second	21.55%
	60.	72%	_		39.28%	
		73.56%			20	.44%
-	62	.35%		and the second value of th	37.65%	-
		94.	.92%			-
	58.9	8%			41.02%	
_		68.70%			31.30	9%
		81.64%		-		18.36%
	49.76%	Statement of Street, or other	1. The second second	50.2	4%	
	and the second second	82.49%			-	17.51%
		79.32%				20.68%
	61.	01%			38.99%	
		67.60%			32.40	%
		82.02%	and a second second			17.98%
		88.14%	6			11.86%
		71.68%		-	28.	32%
	43.49%	and the second		56.51%		
-		91.22	2%	14.0		8.78%
25.96	%		74	4.04%		and the second second
-	36.98%			63.02%		
	37.39%	the second s		62.61%		
-		92.2	5%	and the second second	-	7.75%
	6	4.02%		and the second second	35.98%	P
	43.36%	Statements in case of the local division in		56.64%		
	38.14%	the second s		61.86%		
	1	66.33%			33.679	6
	61	15%		and the second second	38.85%	
	10000					
	1000	66.37%			33.639	6

% of Total Normalized Activit



Total Activity by Place Name

Precicnt Activity by Place Name

Name	
South Yarra Housing Estate Outdoor Gym,South Yarra Preschool	6.371%
South Yarra Train Station	5.727%
Fairbairn Boxing and Fitness,Melbourne High School,The Unicorn Cl	3.499%
eq:Grilled,Hunky Dory,Frozen,Middle South East,Amazing Accommodat	3.318%
Vacant,Vacant,1R Gym,Amity Property Group,HSBC, ,Vacant,Vacan	1.710%
Harper Bar,Huxtaburger	1.682%
Vacant,Vacant,Soda Rock Diner,Boost Juice,Cotton On Fashion,Vac	1.559%
Hello Sam South Yarra	1.519%
Schnitz,Koko Black,Australian Alpaca Connection,Designer Outlet,V	1.369%
House of Lulu White	1.304%
Veronika Maine,Laser Clinics Australia,Kaya,Eb Games,Wittner Sho	1.279%
89/8 Perth Street PRAHRAN	1.262%
Pro Photo Lab	1.252%
Urban Provedore,Anne Gallery,Clear Skin Care South Yarra,Yi Fang	1.238%
90 Greville Street PRAHRAN	1.087%
Claremont Supermarket (Asian),Gotcha Fresh Tea - South Yarra,The	1.085%
Manor House, Cinze & Prodigal, E*Hive Gallery	1.060%
Fuumi Baker	1.050%
709 Chapel Street SOUTH YARRA	0.957%
Sam Hibbins MP,Wholesale Beads,Dominos,Sam Hibbins MP	0.937%
167 Peel Street WINDSOR	0.922%
Anytime Fitness South Yarra, Axis Consulting Group, Corporate Keys,	0.894%
Anatolia Gozleme Kitchen, Aroma Bakery Cafe, Clara Flowers Melbou	0.868%
Cafe Pixxina, MELBOURNE H2O SWIMMING CLUB, Princes Gardens	0.783%
Shell	0.646%
Surrey Park	0.643%
Dermaq Aesthetics, Dr. Aileen Alegado, Melville Lawyers, ONYX Creat	0.639%
89/108 Greville Street PRAHRAN	0.610%
Yarra Medical & Cosmetic Centre,Soak Bar,Maven Dental	0.567%
Grattan Gardens	0.564%
516/42 Porter Street PRAHRAN	0.510%
Dineamic Foodstore,Bottle House,Emmanuel Ammo,Bank Of Melbou.	0.498%
Lululemon,Vacant,Melbourne Red Sparrow,Vacant,Vacant,Beauty B	0.492%
Ashbrooke Anti-Ageing & Cosmetic Medicine	0.483%
Adrian Harper Naturopathy, Canine Kinetics, CLIFTON STREET MAR	0.465%
Suan,Cose Ipanema,Cose Ipanema,Kings Domain,Save Our Souls,La	0.464%
48 Caroline Street SOUTH YARRA	0.456%
Prahran Square, Prahran Square Electric Car Parking, Prahran Square.	0.453%
Tatts.Australia Post	0.450%
26-34 Ellis Street SOUTH YARRA	0.432%
17A Stables Lane SOUTH YARRA	0.418%
Thrills,Better Choice,Oishi,Rebel Sport	0.408%
102/25 King Street PRAHRAN	0.393%
Development Site	0.393%
Appleton Matt,Bell Chris,Down Stuart DR,Dr Andrew Ball,Dr Trefor	0.384%
Spoon Bill,Vacant,The Olsen	0.382%
2/72-76 High Street WINDSOR	0.370%

Precicnt Activity by Place Name

Name
Spoon Bill,Vacant,The Olsen
2/72-76 High Street WINDSOR
302/20 Garden Street SOUTH YARRA
2601/18 Claremont Street SOUTH YARRA
Charter Towers Financial Services, Sands Hotel by Nightcap Plus
Orangetheory Fitness
6/16 Porter Street PRAHRAN
CATAPULT ACCOUNTING SERVICES, DMA Clinical Pilates & Physic
Vacant, ,
MB Consulting, No Time For Grace, Suds Laundrette
District Apartment Hotels South Yarra
Arian Young,AssetManager Pro,Clinic of Cosmetic Medicine,Cosme
Hotel Claremont, Siricco House Of Leather, Chemist Warehouse, Che
8 Claremont Street SOUTH YARRA
Chapo's Deli,Dentist Deneral Cosmetic Dentistry,Max Biocare Clinic
347 Toorak Road SOUTH YARRA
Australian Clinical Labs, Australian Vein Clinics, cosmetic surgery and
51A Porter Street PRAHRAN
Modern Chic Claremont - Rejuvenate Stays,Urban Eden in South Ya
Macfarlan St Car Park
502/101 River Street SOUTH YARRA
1/77 River Street SOUTH YARRA
Cignall,South Yarra Barber,Lord of the Fries,Medusa Espresso,Guzr
Fezilla,Jane Hill,Jane Hill,Plant Space,Chronic Fix,Wink Wink,In.cub
Revolver Lane
Good Bean Espresso Bar - South Yarra,Punthill Apartment Hotels
The Cullen,Hu Tong Restaurant & Bar,Golda,GMH
Findlay Arthur Phillips, Threadgold Plummer Hood PTY Ltd., Top300
Hawker Hall
Kin Vietnamese Restaurant, TREK Bikes, Quality Fresh Products, Cas
Dresden,Vacant,Vacant,Barber Time,Vacant
1/8 Porter Street PRAHRAN
Functional Fitness Facility
8/16 Essex Street PRAHRAN
Vacant,Gorman,Amici,Handworks Nouveau Paperie,Vacant
Quest Prahran
Woolworths Prahran
1104/661 Chapel Street SOUTH YARRA
6 James Street WINDSOR
Bubble Space
Vacant,Angle
La Tienda Food,Vacant
274 High Street WINDSOR
Coles
4S/29 Claremont Street SOUTH YARRA
Gardens, Inauro Wealth Management
112 Charles Street PRAHRAN

An external spreadsheet is provided with activity counts for off-line

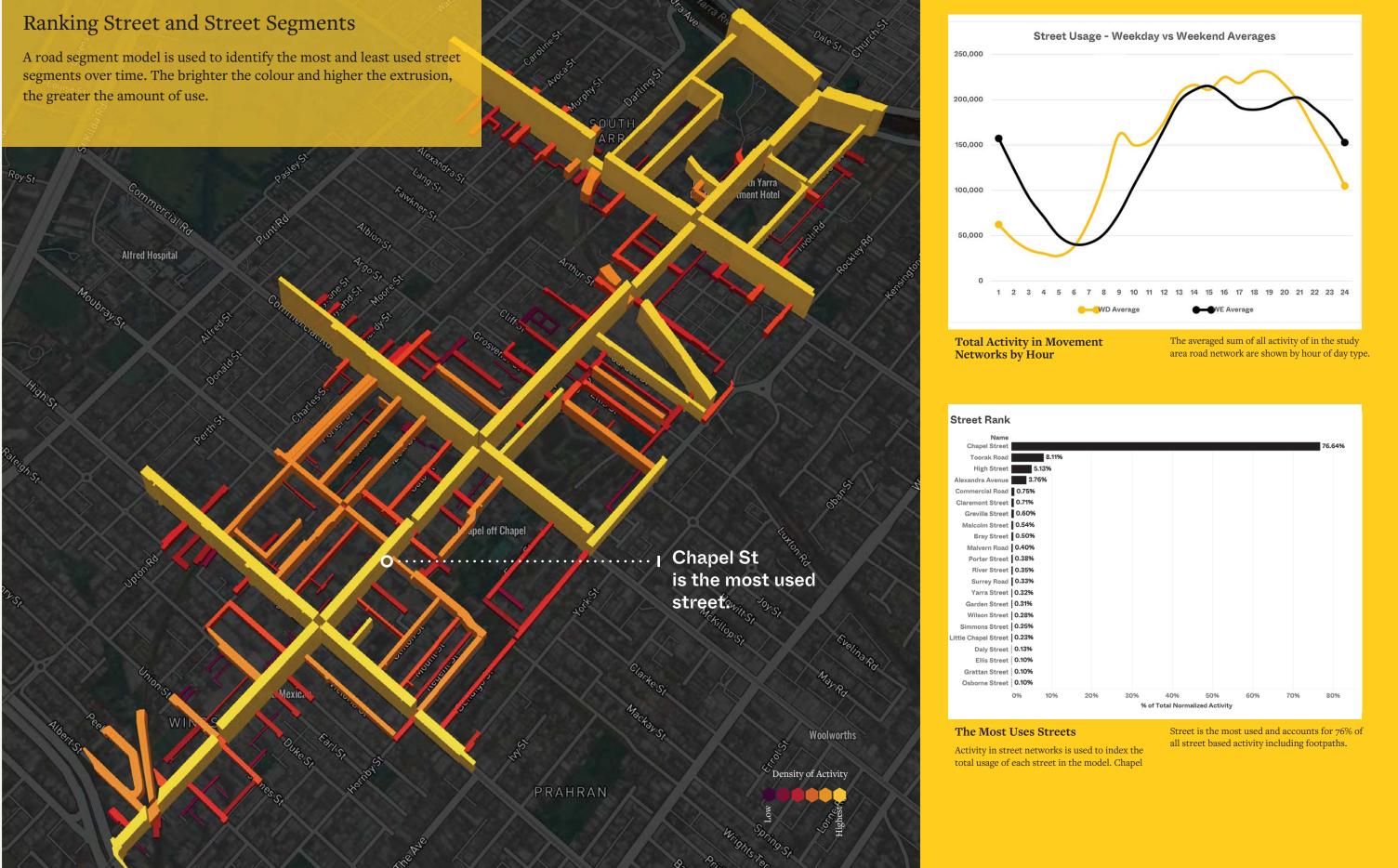
usage.

	0.382%
	0.370%
	0.370%
	0.359%
	0.335%
	0.316%
	0.302%
o	0.295%
	0.290%
	0.278%
	0.276%
t	0.275%
••	0.272%
	0.270%
;,	0.270%
d	0.265%
d	0.255%
r	0.255%
r	0.255%
	0.254%
	0.249%
n	0.248%
e	0.247%
	0.242%
S	0.239%
	0.234%
	0.234%
	0.231%
	0.223%
	0.223%
	0.221%
	0.221%
	0.220%
	0.219%
	0.218%
	0.218%
	0.217%
	0.216%
	0.210%
	0.205%
	0.204%
	0.204%
	0.204%
	0.203%
	0.200%
	0.200%





Understanding Road Usage





32290 OF ALL USAGE IN HIGHSTREET IS GENERATED BY COUNCIL LOCALS, THE HIGHEST RATIO IN ANY OF THE TOP 4 MOST USED ROADS.

Metric	Value	Insight
Number of Roads	180	Out of 180 roads in the model, 91% of all activity occurs in only 4x streets.
Percent of Total Precinct Activity in Roads	77%	Road based activity accounts for 77% of all human movement in the precinct. Use this value to set precinct wide reductions or track increases over time.
Percent of Usage by Residents	26% of all trips	Local residents account for less than half of the demand in the study area move- ment network.
Percent of Usage by Visitors	74% of all trips	External residents are the main users of the study are movement network.
Most Used Road	Chapel St - 76% of all trips	Chapel St is one of the most critical piec- es of network infrastructure in the city centre.
Busiest Day of Week	Friday- 16% of all usage	The pm peak on Friday between 4pm and 8pm is the busiest window of usage in the city center road network.
AM, PM Peak Weekdays	8(AM) 5-6pm (PM)	Is the am and pm peak on weekday aver- aged over 3 years in all roads combined.

Street Networks in the Study Area

The study area is currently reliant on external audiences to support work and commerce within the precinct, with more than 70% of all activity coming from out of the council area.

There is a direct correlation between the level of activity in buildings and the number of trips in the street network. This indicates that the majority of out of council visitors rely on car trips to reach the precinct. Mode shift is a key issue that will enable council to release parking areas for conversion into higher use functions, particularly for land areas located within the city centre.

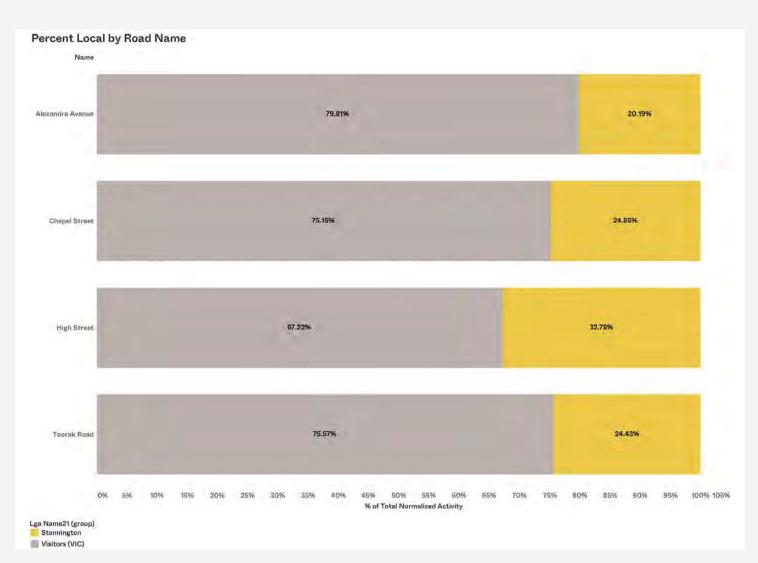


Image: Percent local by road name.



Understanding Dwell Time

Identifying Sticky Places with Dwell Time Maps

A polygon dwell time map is used to reveal where people spend more than 15 minutes occurs across study area. Bright, tall zones represent the most visited locations where people spend over 15 minutes. Dwell times are a key indicator of the places that people value.



Office Premises Shopping Centre Detached Dwelling Community Facility General Purpose Factory Government School Go General Purpose Wareho.. Gen Parks and Gardens 📃 Par National Company Retail Pub/Tavern/Hotel/Licens.. Pub Single Strata Unit/Villa U.. Sing Railway Passenger Termi.. 📃 Railw Commercial Developmen.. Com Ground Level Parking Grou Parcels Parce Residential Investment Fl.. Resid Vehicle Sales Centre Vehic Market Stall Mark University Unive Semi-Detached/Terrace/.. Semi-Serviced Apartments/Hol.. Service Library/Archives Librar Boarding House Board Private Hospital | Privat Conjoined Strata Unit/To.. | Conjo Health Clinic Health Individual Car Park Site Indivi Community Health Centre Comm Retail Premises (multiple .. | Retail Individual Flat Individ Fuel Outlet/Garage/Servi.. Fuel C Outdoor Sports Grounds .. Outdo Place of Worship Place Mixed Use Occupation Mixed Low Rise Office Building Low R Fire Station Facility Fire St Multi-Storey Car Park Multi-Electricity Substation/Ter.. | Electr Residential Hotel/Motel/.. Reside Vacant Residential Dwelli.. Vacan Guest Lodge/Back Packer. Guest Day Care Centre for Chil. Day Ca Member Club Facility Memb Halls and Service Clubro.. Halls Vacant Land Vacan Commercial Land (with b.. Comm Gould Level Parking 0K

Places of High Dwell Times

Dwell Time - Dwell 2021

The measure of how many people are observed in each location type exhibiting a dwell behavior of 31+ minutes is shown in the table above. This dwell interval represents places of high dwell time.

Which Location Do People Dwell The Longest by Type

	R	etail Premises (sing	e occupancy)	
	Strata unit	or flat		
Office Premise	s			
Shopping Centre				
Detached Dwelling				
Community Facility				
General Purpose Factor	y			
overnment School				
eneral Purpose Wareho	use			
rks and Gardens				
tional Company Retail				
b/Tavern/Hotel/Licens	ed Club/Resta	urant/Licensed Rest	aurant/Nightc	lub
gle Strata Unit/Villa Ur				
- way Passenger Termin	al Facilities (in	cluding stations)		
nmercial Development	Site	_		
und Level Parking				
els				
dential Investment Flat	s			
cle Sales Centre				
ket Stall				
ersity				
-Detached/Terrace/Ro	w House			
ced Apartments/Holid	ay Units			
ry/Archives				
ding House				
te Hospital				
oined Strata Unit/Towr	house			
h Clinic				
idual Car Park Site				
munity Health Centre				
l Premises (multiple oc	cupancies)			
idual Flat				
Outlet/Garage/Service	Station			
oor Sports Grounds to	wn or suburba	n facilities		
of Worship				
d Use Occupation				
Rise Office Building				
Station Facility				
-Storey Car Park				
ricity Substation/Term	inal			
lential Hotel/Motel/Ap				
nt Residential Dwelling	Site/Surveyed	Lot		
t Lodge/Back Packers/	Bunkhouse/Ho	ostel		
Care Centre for Childre	n			
ber Club Facility				
and Service Clubroom	s			
nt Land				
mercial Land (with buil	dings that add	no value)		
100K 200K	300K	400K	500K 6	00K



Understanding Dwell Time

Identifying Sticky Places with Dwell Time Maps

A polygon dwell time map is used to reveal where people spend more than 1-3 minutes occurs across study area. Bright, tall zones represent the most visited locations where people spend move quickly. This dwell interval reveals the locations with high turnover and movement.

90 Greville Street PRA

Grilled,Hunky Dory,Frozen,Middle South Vacant,Vacant,Soda Rock Diner,Boost Jui Fairbairn Boxing and Fitness,Melbourne South Yarra Housing Estate Outdoor Gy Vacant, Vacant, 1R Gym, Amity Property Gr Schnitz,Koko Black,Australian Alpaca Cor Veronika Maine,Laser Clinics Australia,Ka 167 Peel Street WIN

Anatolia Gozleme Kitchen, Aroma Bakery Prahran Square, Prahran Square Electric G Cafe Pixxina, MELBOURNE H2O SWIMMIN

Pro Pho Care Park – 9 Elizabeth Street, South Yarr House of Lulu Grattan Ga Developme Hello Sam South

Ashbrooke Anti-Ageing & Cosmetic Me Thrills,Better Choice,Oishi,Rebel Harper Bar,Huxtab Ghanda, Vacant, Platypus, Spor Suan.Cose Ipanema.Cose Ipanema.King Dineamic Foodstore,Bottle House,Emma Urban Provedore,Anne Gallery,Clear Skin Woolworths Pr

Dagua, Politix, General Australian Clinical Labs, Australian Vein C Spoon Bill,Vacant,The

ALDI.Fuii Mart Melb Good Bean Espresso Bar – South Yarra, Pu Manor House, Cinze & Prodigal, E*Hive G 709 Chapel Street SOUTH Y Claremont Supermarket (Asian).Gotcha F

Yarra Medical & Cosmetic Centre, Soak B Dan Mu Tatts,Australia

Hotel Claremont, Siricco House Of Leathe 2601/18 Claremont Street SOUTH Y Sam Hibbins MP,Wholesale Beads,Domin Dermaq Aesthetics,Dr. Aileen Alegado,M Car park 3-5 Princes Close PRAH

Surre The Cullen,Hu Tong Restaurant & Bar,Go Country

Anytime Fitness South Yarra.Axis Consult Teamoo,Egg Station,Master Roll Vietnam, Toorak/South Yarra Li Jb-Hi-Fi,Dan Murphys Cellar,Jb-

Office 102/25 King Street PRA

Council 17A Stables Lane SOUTH Y Chapo's Deli,Dentist Deneral Cosmetic I

Fuumi Arian Young,AssetManager Pro,Clinic of

Places of High Footfall Turnover

The measure of how many people are observed in each location exhibiting a dwell behavior of 1-3 minutes is shown in the table above. This dwell interval represents places of movement.



Name Train Station	Retail Premises (single occupancy
eet PRAHRAN	Railway Passenger Terminal Facilities (including stations
e South East.	Shopping Centre
oost Juice,C	Shopping Centre
bourne High.	Government School
loor Gym,So	Community Facility
perty Group	Strata unit or flat
aca Connec	Shopping Centre
tralia,Kaya,E	Shopping Centre
eet WINDSOR	Railway Passenger Terminal Facilities (including stations)
Bakery Cafe	Market Stall
lectric Car P.,	Retail Premises (single occupancy)
WIMMING CL	Parks and Gardens
Shell	Fuel Outlet/Garage/Service Station
Pro Photo Lab	Office Premises
uth Yarra,Cl	Ground Level Parking
of Lulu White	Strata unit or flat
attan Gardens	Parks and Gardens
elopment Site	Commercial Development Site
n South Yarra	Strata unit or flat
Coles	National Company Retail
etic Medicine	Office Premises
ni,Rebel Sport	Office Premises
,Huxtaburger	Strata unit or flat
ous,Sportsgirl	Retail Premises (single occupancy)
na,Kings Do	Retail Premises (single occupancy)
,Emmanuel	Retail Premises (single occupancy)
ear Skin Car	Retail Premises (single occupancy)
orths Prahran	National Company Retail
General Pants	Retail Premises (single occupancy)
n Vein Clinic	Strata unit or flat
ant,The Olsen	Retail Premises (single occupancy)
art Melbourne	National Company Retail
Yarra,Punthi	Strata unit or flat
*Hive Gallery	Retail Premises (single occupancy)
OUTH YARRA	Retail Premises (single occupancy)
otcha Fresh	National Company Retail
,Soak Bar,M	Retail Premises (single occupancy)
Dan Murphy'S	National Company Retail
Australia Post	Shopping Centre
f Leather,Ch	Retail Premises (single occupancy)
OUTH YARRA	Strata unit or flat
s,Dominos,S	Strata unit or flat
	Vehicle Sales Centre
	Ground Level Parking
	Parcels
	Retail Premises (single occupancy)
Yarra Library	
	Retail Premises (single occupancy)
	Retail Premises (single occupancy)
	Residential Investment Flats
Council Office	
	Single Strata Unit/Villa Unit/Townhouse
	Retail Premises (single occupancy)
	Retail Premises (single occupancy)
Clinic of Cos	Office Premises

Key Insights About Dwell Time

16 min IS THE AVERAGE DWELL TIME IN COMMERCIAL AND RETAIL BUILDINGS IN THE CITY CENTRE

Metric	Value	Insight
Area Average Dwell Time per Location Visited (Buildings + Parks)	16 minutes	16 minutes is a significant dwell time and reflects that people remain more local than transient when visiting lo- cations. Busy city centers such as the Sydney CBD have an average dwell time of under 8 minutes per location.
Leading Locations Types of Dwelling more than 10 minutes	Retail, Residential	As expected the major destination magnets are the leading locations for dwell times greater than 10 minutes.
Average time spent by Residents	13.78 minutes	Residents and visitors alike spend a significant amount of time on average in commercial shops and destination locations.
Average time spent by Visitors	17.3 minutes	
Dwell time in Summer (Average minutes spent) Indoors	21.2 minutes	Summer dwell times in indoor locations are higher than winter locations.
Dwell time in Winter (Average minutes spent) Indoors	12.6 minutes	
Most dwelled in location	Unit 4 167 Toorak Road	This location includes Grilled, Hunky Dory, Frozen, Middle South East, Amazing Accommodations, Harvest, Xynergy and the Realty Group

Non Public - Unlimited Release

This document has been prepared as a technical note for Stonnington Council for internal usage and for subject matter experts involved in Chapel Street project for council.



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