TURNSTONE PARKING MANAGER
DETAILED SOW February 2026

This document outlines the core processes & deliverables Turnstone will provide to Santa Rosa to best support the paid parking program annually. This document is divided into four sections: Principles of Operation, Platform Functionality, Additional Services, and Project Budget.

OPERATING PRINCIPLES

Applying relevant lessons from work we're doing with other cities, we follow core operational principles, including:

1. **Communication.** Turnstone facilitates regular Project Meetings with the City to ensure the platform continues to meet Santa Rosa's needs and to provide a forum for discussion, adaptation to, and adjustment of Santa Rosa's parking program.

2. **Accountability.** Detailed notes are kept for all meetings, tracking discussions, actions, and follow-through. These notes are shared with all identified stakeholders to ensure alignment and that action items are not missed.

3. **Information Sharing**. The Turnstone team works with cities of all sizes across the country and has developed specialized expertise in parking. Turnstone will freely share that expertise & information with Santa Rosa, with permission where required.

4. **Support**. Turnstone can also provide ad hoc support for program development and management. This can include data acquisition & analysis, custom reporting, and the development and execution of advanced predictive models.

By following these principles, we will ensure the City of Santa Rosa receives maximum benefit with minimal commitment, leveraging a system that's consistent, reliable, and easy to use.

PLATFORM FUNCTIONALITY

The Turnstone Parking Manager dashboard will provide continuous, cloud-based data analysis and visualization around curbside parking occupancy, and automatic insights into what's happening across the City at all times. Users will be able to access clear data visualizations to support the implementation and management of policies, including time limits, rate changes, and on-demand investigation. All data on the platform will be available for download to support offline analysis and/or presentation in other formats. These user benefits are made possible by a unique set of features not available on any other platform.
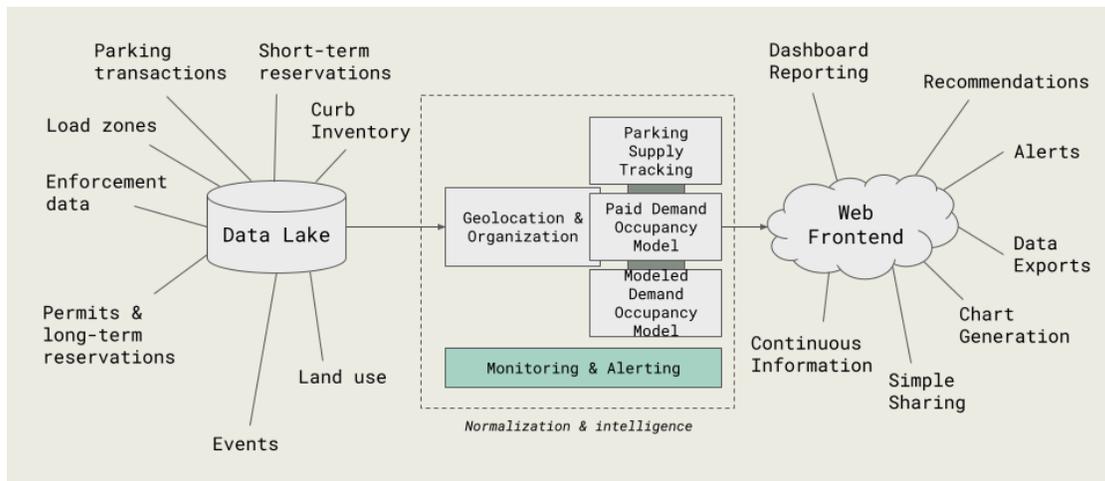
Data Aggregation & Normalization

Turnstone normalizes multiple complex data types from any vendor, supporting operational analyses. Data types can include (but are not limited to) hardware and mobile-based transactions, dynamic on-street supply, lot and garage inventory, reservations, permits, and events. All of these types are 'normalized' such that they can be compared, combined, and otherwise used in concert.

Data Monitoring & Alerting Services

Transactions come from multiple vendors in every city, all with their own mapping, format, and standards. Turnstone monitors these inputs continually for gaps, dramatic changes, and trends over time, and triggers alerts when action is required.

Zone/Neighborhood Mapping

Turnstone aggregates supply from the block level up to the neighborhood level. If block-level supply is known, the zone's supply is the sum of all blocks in the zone. This means that occupancies are always at the lowest and highest levels of inspection, from block all the way up to citywide. If supply changes at any time, the entire city can be updated easily (and automatically) with no manual data entry required by the City.
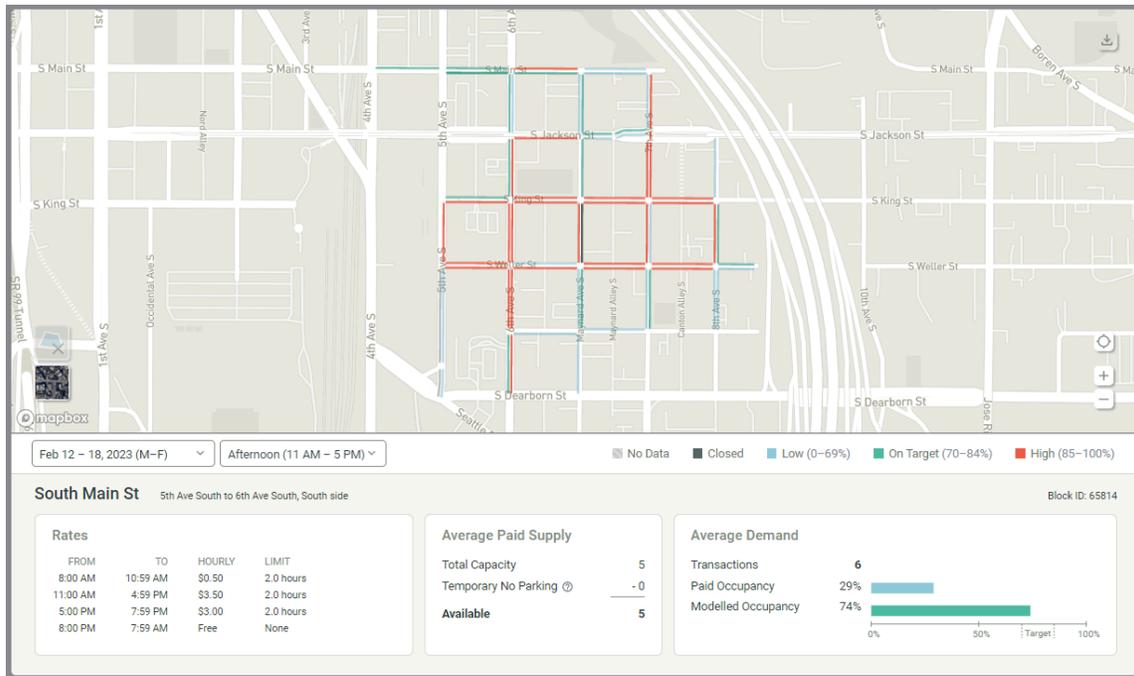
Data Modeling

Turnstone employs several layers of models in order to effectively create a digital representation of the City's curb. This collection of models enables Turnstone to make intelligent predictions about non-payment while also providing the underlying data. The availability of each model

depends on the data sources available.

1. **Dynamic Supply Tracking.** The inherently dynamic nature of parking space availability in a city is a key driver for Turnstone's continuous collection and aggregation of accessible data on parking supply, ensuring a clear and accurate view of the parking system. Requires: a source of permit and/or red bag data.

2. **Paid Parking Demand.** Turnstone combines transaction data from all hardware meters and mobile payment applications to determine the average number of spaces per hour paid on a given block face. Requires: transactional data.

3. **Duration of Stay.** Although Paid Parking Demand indicates the general usage of a block face, it doesn't account for under- or overpayment. Turnstone's next layer of analysis is a statistical curve, trained on manually collected sample data, that predicts the probability that a paid vehicle remains present at time t after payment. Requires: transactional data.

4. **Unpaid Behavior.** Even with accurately calculated paid behavior, the actual usage of a block face may vary due to unpaid parking events. Turnstone's advanced model is trained to predict unpaid behavior relative to paid; this prediction is then layered on top of duration-of-stay to better understand what is happening in the real-world system. Requires: training data.

5. **Overnight Vehicles.** Many cities allow vehicles to park for free outside paid hours, both after the end of the day and in the morning before the start of the day. Turnstone's overnight model accounts for these vehicles, again using historical samples for training to generate occupancy predictions for any given block face or zone in a city with high accuracy. Requires: training data & accurate supply count.

6. **Drift Analysis.** On a regular—and automated—basis, Turnstone monitors predefined indicators that indicate a change on a given block face. If a significant change is detected, further analysis or updated sampling is recommended. Requires: transactional data.

Business Intelligence

The backend features described above work in concert to ensure data is complete, accurate, continuous, reliable, and detailed enough to support the front-end functionality that delivers real value to Turnstone's users.

South Main St · 5th Ave South to 6th Ave South, South side · Block ID: 65814

Rates

FROM	TO	HOURLY	LIMIT
8:00 AM	10:59 AM	$0.50	2.0 hours
11:00 AM	4:59 PM	$3.50	2.0 hours
5:00 PM	7:59 PM	$3.00	2.0 hours
8:00 PM	7:59 AM	Free	None

Average Paid Supply

Total Capacity	5
Temporary No Parking ⓘ	- 0
Available	**5**

Average Demand

Transactions	6
Paid Occupancy	29%
Modelled Occupancy	74%

- **Interactive Parking Map** reflects transaction volumes, parking demand, rates, and dynamic supply at citywide, zone, and block face levels. Provides users with a direct visual comparison between paid demand and actual on-street demand, accounting for ADA, RPZ, and other non-payment behaviors.

- **At-a-Glance Metrics** on Average Occupancy, Hourly Occupancy, and Rate vs. Occupancy by day, hour, or peak period.

- **Parking Impact Analysis Report** that will help the City evaluate how changes to land use, parking supply, and permit allocation affect program performance, particularly occupancy and revenue.

- **Full Data Exports** can be downloaded at any time for the dates selected in Parking Manager, reflecting all available values at the blockface level. Includes hourly capacity, reservations, available spaces, paid & modeled occupancy, parking rate, and net accrued dollars. Download up to three months at once.

Data Collection

To support the City's accuracy goals, two data-collection efforts will be conducted annually, providing citywide on- and off-street occupancy observations to validate parking behavior and continuously train the data models Turnstone employs to predict nonpayment.

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OPTIONAL SERVICES

The following services can be provided upon request, subject to a fixed-fee quote and written approval from the City.

Rate Review Support

Additional tools & assistance for rate adjustment programming are available on request. This includes analysis of current and future paid occupancy, incorporating seasonal trends. Analysis is shared for the city's review and further assessment, and Turnstone provides subject-matter expertise throughout the process. Can be provided at any time with 4 weeks' notice.

Ad Hoc Data Analysis

Turnstone is staffed with data scientists and engineers who can run trend analyses, *what-if?* scenarios, budget projections, or other ad hoc requests. These can be requested at any time through project meetings or via email.

Custom Reporting

Turnstone includes functionality for automated report generation and distribution. Reports that include information already available in the platform's backend can be developed on request. This process would include discovery calls with stakeholders, design & planning to ensure the report meets stakeholder needs, and implementation.

Turnstone Community

Paid parking programs across the country face similar challenges, and cities have developed varied approaches to address them. Turnstone is committed to facilitating knowledge sharing to advance program development nationwide. As the Turnstone community grows, the City will have an opportunity to participate by sharing ideas and learning from others. For members that opt-in, Turnstone will:

- Share relevant learning between municipalities, when permitted;
- Offer to connect organizations facing similar challenges; and
- Facilitate collaborative sessions, virtual or in-person, when feasible.

PLATFORM FEES

Below is a summary of remaining costs for Year 1, along with costs for Year 2 and 3, which include 4,000–5,000 spaces, monthly project management meetings, and ad hoc data analysis support.

ITEM	COST
Citywide Data Collection Completed 12/04/25	$ 4,485
Turnstone Platform Access Year 2 07/01/26 – 08/31/27	$ 55,000
Turnstone Platform Access Year 3 07/01/27 – 08/31/28	$ 60,500
Turnstone Impact Analysis Report 07/01/26 – 08/31/28	$ 24,000
Bi-Annual Data Collection (twice per year) 01/01/26 – 08/31/28	$20,000
Total (3 Years)	**$ 163,985**

DRAFT INVOICE

City of Santa Rosa
100 Santa Rosa Ave
SANTA ROSA CA 95404
USA

Invoice Date
Feb 6, 2026

Invoice Number
INV-0209

Reference
2026-2028

Turnstone Data Inc.
Attention: Scott Lee
46505 SE Mt Si Rd
NORTH BEND WA 98045
UNITED STATES

Description	Quantity	Unit Price	Tax	Amount USD
Citywide Data Collection (Completed 12/04/25)	1.00	4,485.00	Tax on Sales	4,485.00
Turnstone Platform Access Year 2 (07/01/26 – 08/31/27)	1.00	55,000.00	Tax on Sales	55,000.00
Turnstone Platform Access Year 3 (07/01/27 – 08/31/28)	1.00	60,500.00	Tax on Sales	60,500.00
Turnstone Impact Analysis Report (07/01/26 – 08/31/28)	1.00	24,000.00	Tax on Sales	24,000.00
Bi-Annual Data Collection (01/01/26 – 08/31/28)	1.00	20,000.00	Tax on Sales	20,000.00
			Subtotal	163,985.00
			TOTAL TAX	0.00
			TOTAL USD	**163,985.00**

Due Date: