

WORLDNERVE

Municipal and Public Asset Ground Movement Screening

A real-data sample for cities, counties, public authorities, facilities teams, public works, and resilience programmes.

HOUSTON SAMPLE SCHEDULE

30 public reference locations | 165 observation dates | January 2020 to July 2025

THE ASSET-MANAGEMENT QUESTION

**Where should limited
inspection, engineering, and
capital-planning resources go
first?**

A ranked review queue for distributed public assets and service areas.

Prospect sample

Real measurements. Public locations. No confidential municipal data.

Public asset programme summary

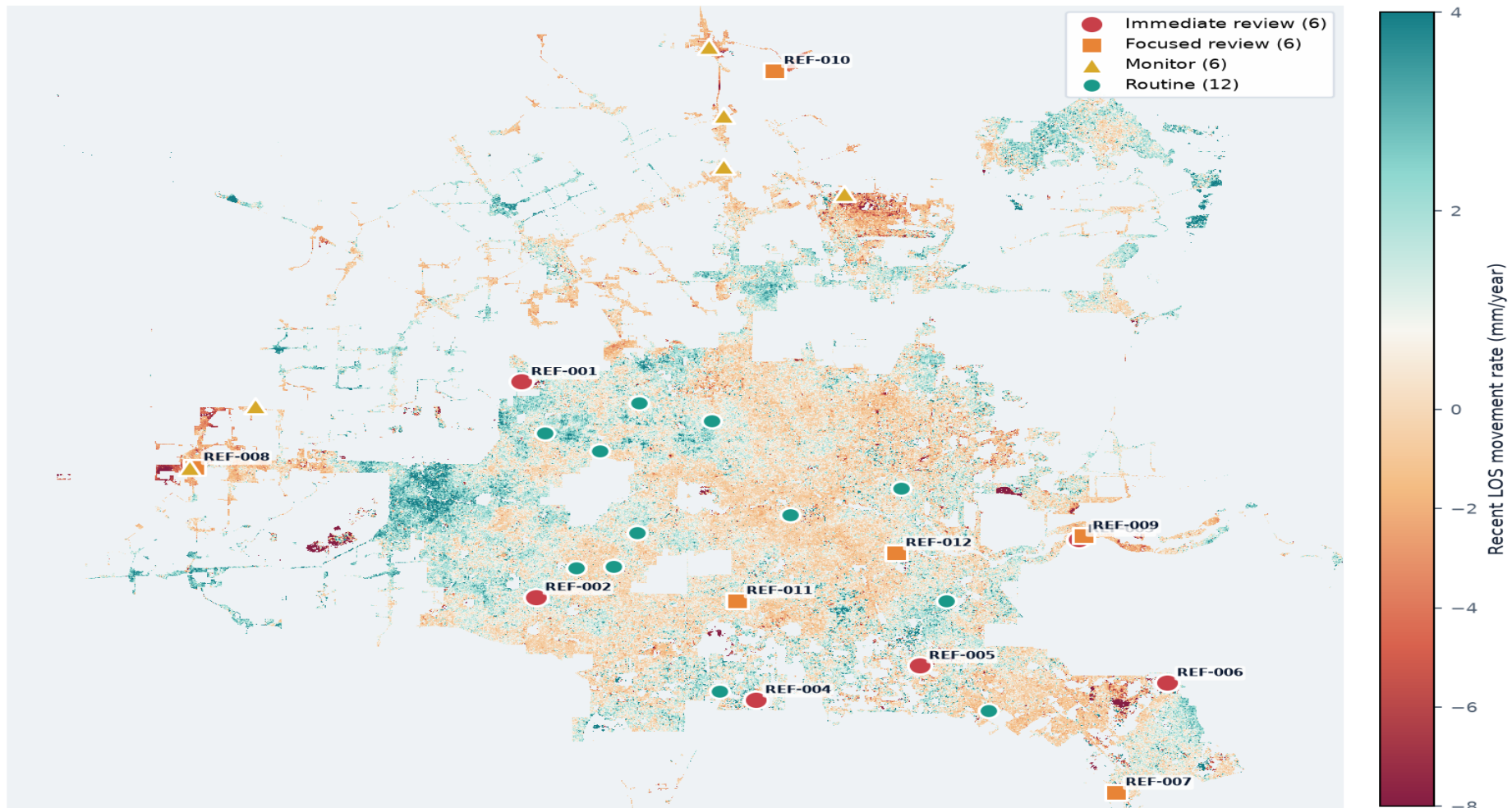
The screen turns a distributed location schedule into a consistent engineering and monitoring queue. The sample is intentionally stratified across measured signal classes to demonstrate the complete municipal deliverable; it is not a Houston prevalence estimate.

6 PRIORITY ENGINEERING REVIEW	6 FOCUSED ASSET REVIEW	6 MONITORING QUEUE	12 ROUTINE	100% MEASUREMENT COVERAGE
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Programme treatment	What the screen found	Municipal action
Priority engineering review	REF-001 leads the schedule at -19.7 mm/year LOS.	Confirm the asset or service-area footprint and prioritize engineering or field review.
Focused asset review	Persistent negative movement is visible but below the priority-review band.	Review maintenance, drainage, condition, and project history; inspect where operationally material.
Monitoring queue	A measurable baseline is retained without immediate escalation.	Refresh during the capital-planning, inspection, or resilience review cycle.
Routine	No movement-led referral was identified from the available evidence.	Continue normal asset management and retain the dated baseline.

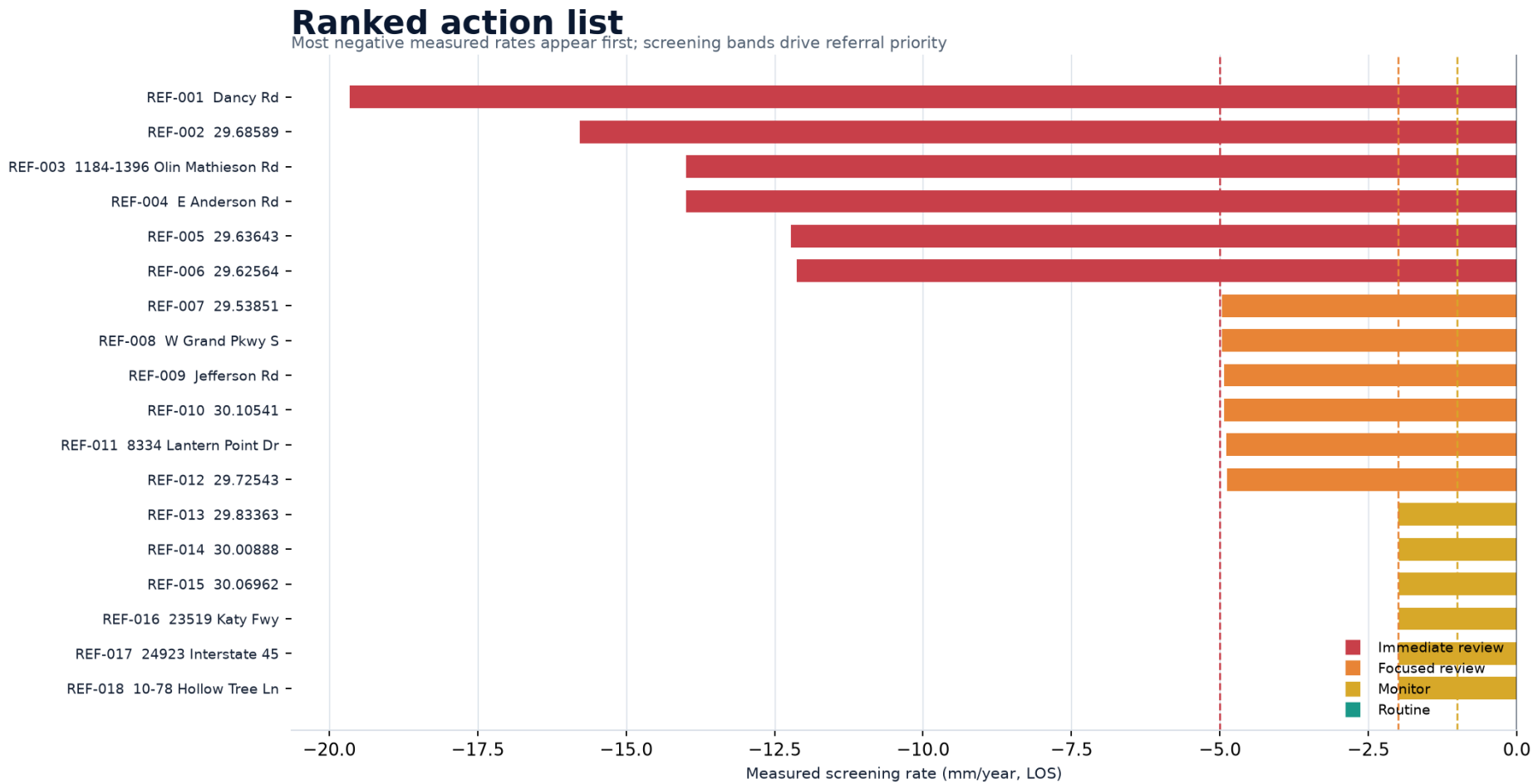
A citywide view for distributed responsibility

The map shows individual review outcomes against the measured regional pattern. With client asset fields, the same view can be filtered by department, asset class, council district, maintenance area, project, or capital programme.



The strongest evidence rises to the top of the work queue

The ranked view helps public-asset managers focus engineering and inspection effort without treating every measured variation as a service or safety problem.



Municipal asset action register

A live delivery retains the authority's own asset ID, department, class, criticality, condition, work-order, and capital-project fields.

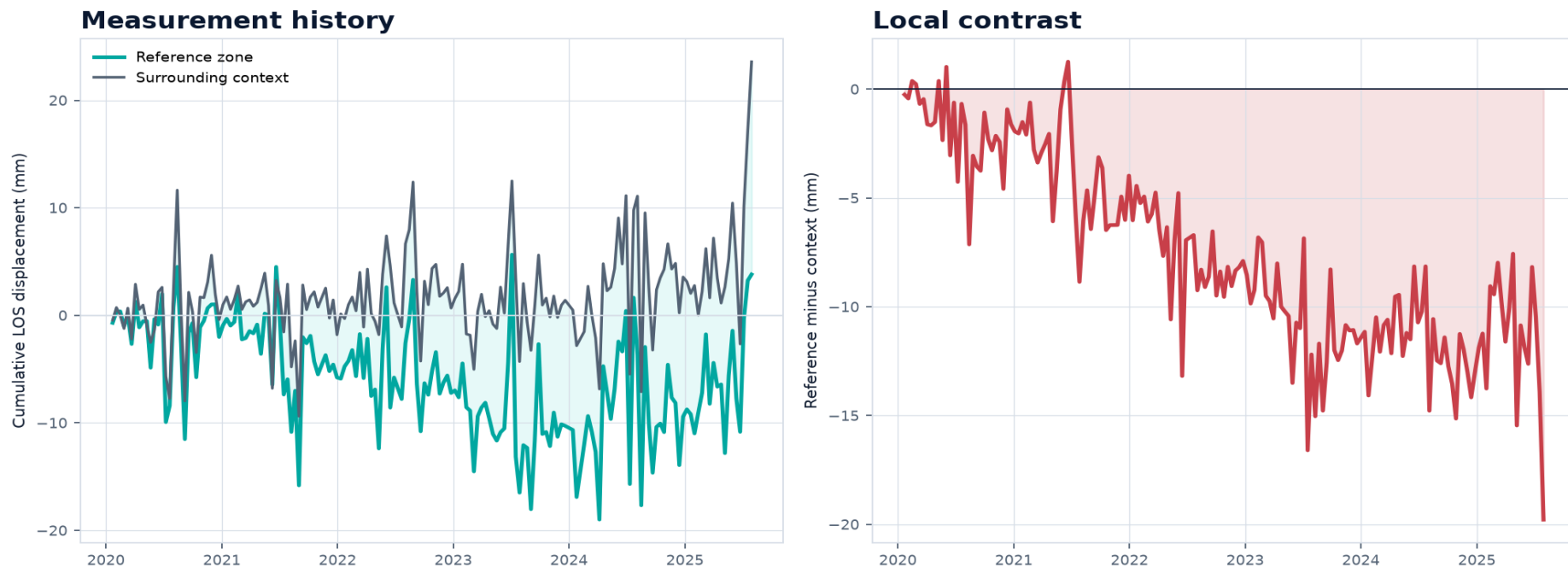
Reference	Location	Programme status	LOS rate	Evidence	Asset-management action
REF-001	Dancy Rd	Priority engineering review	-19.7 mm/yr	Decision-ready	Confirm asset footprint; prioritize engineering and field review.
REF-002	29.68589	Priority engineering review	-15.8 mm/yr	Use with context	Confirm asset footprint; prioritize engineering and field review.
REF-003	1184-1396 Olin Mathieson Rd	Priority engineering review	-14.0 mm/yr	Decision-ready	Confirm asset footprint; prioritize engineering and field review.
REF-004	E Anderson Rd	Priority engineering review	-14.0 mm/yr	Use with context	Confirm asset footprint; prioritize engineering and field review.
REF-005	29.63643	Priority engineering review	-12.2 mm/yr	Use with context	Confirm asset footprint; prioritize engineering and field review.
REF-006	29.62564	Priority engineering review	-12.1 mm/yr	Decision-ready	Confirm asset footprint; prioritize engineering and field review.
REF-007	29.53851	Focused asset review	-5.0 mm/yr	Decision-ready	Review context and maintenance history; inspect if operationally material.
REF-008	W Grand Pkwy S	Focused asset review	-5.0 mm/yr	Use with context	Review context and maintenance history; inspect if operationally material.
REF-009	Jefferson Rd	Focused asset review	-4.9 mm/yr	Use with context	Review context and maintenance history; inspect if operationally material.
REF-010	30.10541	Focused asset review	-4.9 mm/yr	Decision-ready	Review context and maintenance history; inspect if operationally material.
REF-011	8334 Lantern Point Dr	Focused asset review	-4.9 mm/yr	Use with context	Review context and maintenance history; inspect if operationally material.
REF-012	29.72543	Focused asset review	-4.9 mm/yr	Decision-ready	Review context and maintenance history; inspect if operationally material.
REF-013	29.83363	Monitoring queue	-2.0 mm/yr	Decision-ready	Retain baseline and refresh during the agreed planning cycle.
REF-014	30.00888	Monitoring queue	-2.0 mm/yr	Use with context	Retain baseline and refresh during the agreed planning cycle.
REF-015	30.06962	Monitoring queue	-2.0 mm/yr	Decision-ready	Retain baseline and refresh during the agreed planning cycle.
REF-016	23519 Katy Fwy	Monitoring queue	-2.0 mm/yr	Decision-ready	Retain baseline and refresh during the agreed planning cycle.
REF-017	24923 Interstate 45	Monitoring queue	-2.0 mm/yr	Decision-ready	Retain baseline and refresh during the agreed planning cycle.
REF-018	10-78 Hollow Tree Ln	Monitoring queue	-2.0 mm/yr	Decision-ready	Retain baseline and refresh during the agreed planning cycle.
REF-019	Jungman Branch	Routine	-0.4 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-020	African American History Research Center	Routine	-0.3 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-021	HPL Southwest Express	Routine	-0.0 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-022	Tuttle Branch	Routine	0.0 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-023	Hillendahl Branch	Routine	0.1 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-024	Collier Regional Branch	Routine	0.1 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-025	Bracewell Branch	Routine	0.1 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-026	Walter Branch	Routine	0.1 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-027	Oak Forest Branch	Routine	0.2 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-028	Ring Branch	Routine	0.2 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-029	Vinson Branch	Routine	0.2 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.
REF-030	Park Place Regional Library	Routine	0.3 mm/yr	Decision-ready	No movement-led escalation; continue normal asset management.

Evidence behind a priority engineering review

REF-001 is not labeled as failed, unsafe, or damaged. It enters the priority queue because its measured pattern is strong enough to justify engineering attention relative to the rest of the schedule.

Why this location enters the priority queue

REF-001 | Immediate review | measured screen -19.7 mm/year LOS



Suggested municipal action

Confirm whether a public asset, service area, planned project, or maintenance concern overlaps the measured zone. Review condition, drainage, utilities, foundations, works, and existing survey information before deciding the field response.

Designed for municipal asset and capital-planning workflows

1. ASSET GIS	2. CONSISTENT SCREEN	3. RANKED PROGRAMME	4. PLAN, INSPECT, MONITOR
Authority provides Asset IDs and footprints Departments and classes Criticality and condition Projects and work orders	WorldNerve measures Historical movement Local comparison Evidence coverage Per-asset indicators	Delivered queue Priority reviews Monitoring list Routine locations Maps, CSV, and GIS	Authority decides Engineering referral Inspection timing Capital-project input Monitoring cycle

Where it fits

Facilities: prioritize building reviews and retain baselines.
Public works: add movement context to roads, drainage, and projects.
Utilities: compare service areas and planned field activity.
Capital planning: direct studies and inspection budgets.
Resilience: maintain a citywide historical evidence layer.

Evidence boundary

The screen supports prioritization and historical context. It does not determine structural condition, cause, public safety, serviceability, remaining life, project design, or maintenance need.

Repeat use

Refresh the same asset schedule as new observations arrive, during capital-plan updates, or after major works and events.

START WITH ONE DEPARTMENT OR ASSET CLASS

Turn a public asset schedule into an engineering review queue.

A controlled pilot establishes data coverage, usefulness, and integration requirements before citywide deployment.

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What to send

A CSV or GIS layer containing asset IDs and addresses, coordinates, or footprints. Optional fields may include department, class, criticality, condition, project, and work-order information.

What the pilot answers

Which locations justify engineering review? Which should be monitored? Where is the evidence insufficient? Which can remain in normal asset management?

Scalable after the pilot

Expand across facilities, public works, drainage, utilities, transport, capital projects, or the full public-asset portfolio.

Data basis: OPERA Surface Displacement (DISP-S1), ascending track 34 / frame 8882; 165 observations from January 2020 to July 2025. Screening uses short-wavelength LOS measurements at approximately 30 m native spacing and local spatial aggregation. LOS combines vertical and horizontal motion; negative values are movement away from the satellite, not direct vertical-settlement estimates. Public reference locations demonstrate the municipal format and do not characterize a confidential municipal portfolio.