

WORLDNERVE

Commercial Property Ground Movement Due Diligence

A real-data sample for property investors, lenders, developers, asset managers, and transaction teams.

HOUSTON REFERENCE SITE

165 observation dates | January 2020 to July 2025

THE TRANSACTION QUESTION

Has the target site or its immediate area moved enough to justify additional review before commitment?

A dated movement history for the site and surroundings.

Prospect sample

Real measurements. Public reference site. No client transaction data.

Transaction decision summary

ADDITIONAL SPECIALIST REVIEW JUSTIFIED

The reference site shows a persistent negative LOS movement pattern and meaningful contrast with its surroundings. The result supports targeted engineering or geotechnical review before treating ground-movement uncertainty as closed.

SITE	MEASURED SCREEN	EVIDENCE HISTORY	CONFIDENCE
CP-001 29.85611, -95.56085 Houston public reference location	-19.7 mm/year LOS Negative means movement away from the satellite along its viewing direction.	January 2020 to July 2025 165 dated observations across one ascending track.	Decision-ready Trend fit R-squared: 0.99 Reliable support: 80%

Before exchange or commitment	For the technical team	For the investment or credit file
Keep the issue open in the due diligence tracker and commission proportionate specialist review before relying on the site as routine.	Review foundations, site history, drainage, ground conditions, and available survey evidence against the measured spatial and temporal pattern.	Retain the dated evidence, confidence statement, and resulting professional interpretation with the transaction record.

The site is read in its neighbourhood context

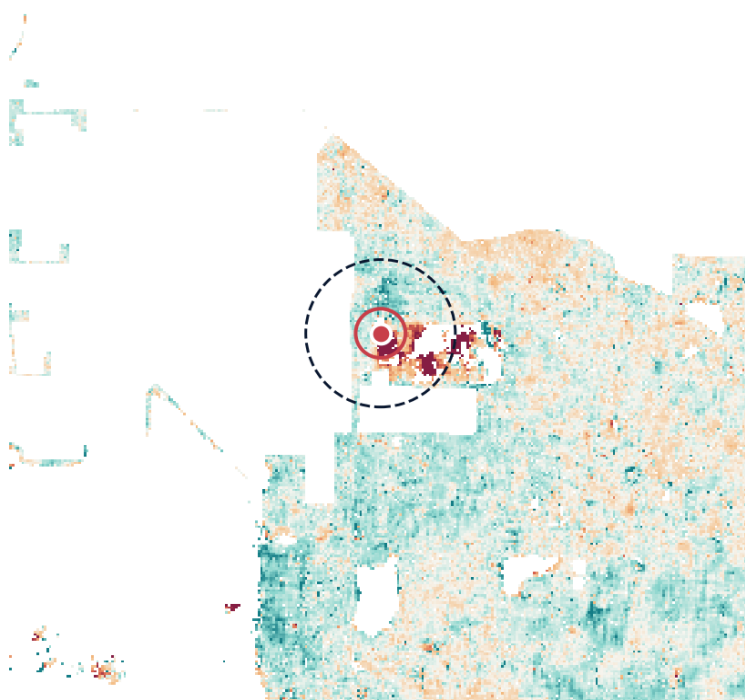
A site moving with the whole district presents a different due diligence question from a location moving differently from nearby ground. The spatial view shows where the reference site sits within the measured pattern.

Measured movement around the reference site

Red marker: reference site | Solid ring: 300 m screen | Dashed ring: neighbourhood context

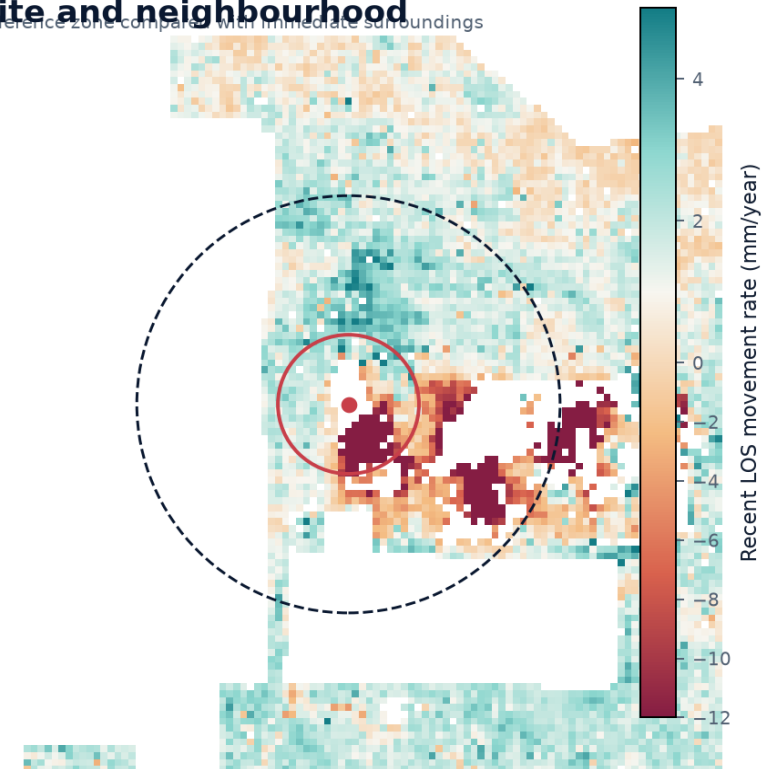
District context

Movement pattern across the surrounding area



Site and neighbourhood

Reference zone compared with immediate surroundings



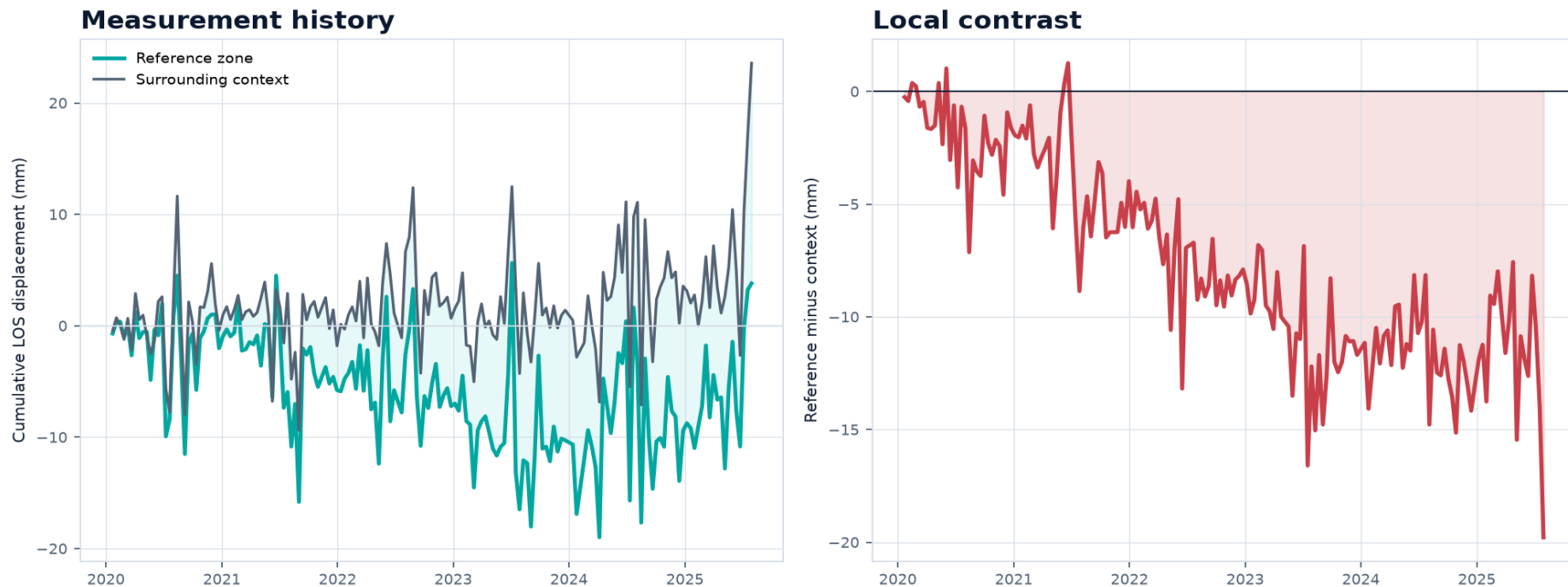
Sample convention: the red marker and 300 m screen represent a public reference site. A client assessment uses the supplied parcel and building footprint.

Movement history adds what a one-day survey cannot

The dated record shows how the reference zone and surrounding area behaved through time. The local-contrast chart makes the transaction-relevant difference visible.

Reference site movement history

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



Due diligence interpretation

The observed pattern warrants targeted follow-up. It does not by itself establish building damage, cause, repair need, valuation impact, or fitness for use.

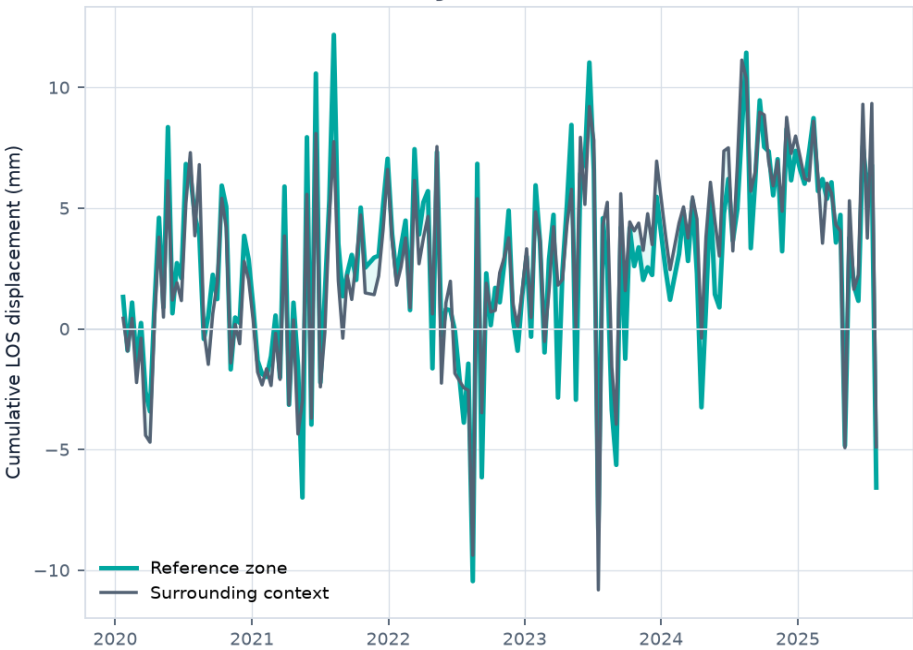
A useful screen also distinguishes routine sites

The comparison below uses a separate public reference location with no movement-led escalation. The same process can therefore support both referral and clearance decisions without treating every measured variation as a property problem.

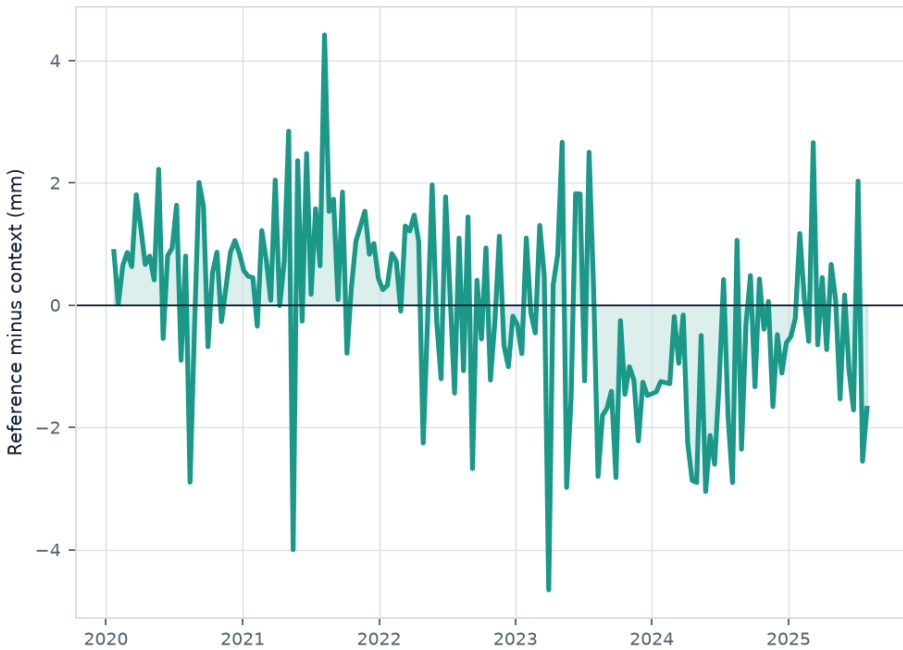
Routine comparison site

REF-019 | Routine | measured screen -0.4 mm/year LOS

Measurement history



Local contrast



REFERENCE SITE CP-001	ROUTINE COMPARATOR
-19.7 mm/year LOS Focused specialist review justified before closing the issue.	-0.4 mm/year LOS No satellite-led escalation; continue normal due diligence.

How movement evidence changes due diligence

Evidence result	Transaction implication	Proportionate next step
Strong local movement pattern	The site's movement history is not adequately addressed by area-level hazard mapping or a present-day condition snapshot.	Target engineering or geotechnical review and keep the issue open in the transaction tracker.
Movement shared with the wider area	The pattern may be regional rather than asset-specific, changing the questions asked of the technical team.	Review district context, site sensitivity, foundations, and intended use.
No movement-led escalation	The satellite screen does not add a specific ground-movement referral trigger.	Continue ordinary legal, structural, environmental, valuation, and technical due diligence.
Insufficient measurement coverage	The archive cannot support a reliable site-level conclusion.	Do not infer stability. Use surveys, engineering review, alternative imagery, or on-site monitoring.

Questions the report answers Has the site or surrounding area moved? Is the pattern local or shared with the neighbourhood? When did the measured behaviour occur? Is the evidence sufficient for screening? Does the result justify specialist follow-up?	Client inputs that improve the answer Exact parcel and building footprints Transaction timetable and decision question Foundation and construction information Site history, surveys, and geotechnical reports Known events, works, drainage, or dewatering history
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Evidence formatted for transactions and committees

Executive deliverable Plain-language transaction summary Clear screening outcome and next step Site and neighbourhood movement map Dated displacement history Local-versus-neighbourhood comparison Evidence coverage and confidence statement	Technical and data handoff Per-location measurement extract CSV and GIS-compatible outputs on request Documented observation period and geometry Quality fields and screening assumptions Figures suitable for transaction papers Technical appendix for engineering reviewers
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Role in the transaction

The report is an independent historical evidence layer. It supports investment, lending, surveying, engineering, and risk review but is not a valuation, structural survey, geotechnical opinion, investment recommendation, or fitness-for-use certification.

Evidence period	Observation geometry	Measurement density	Native spacing
January 2020 to July 2025	One ascending satellite track	165 dated observations	Approximately 30 m

START WITH ONE PROPERTY**Read the ground-movement history before you commit.**

A feasibility review confirms what the satellite archive can support for the exact property and transaction timetable.

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What to send

The property address or coordinates and, ideally, the parcel or building footprint. Add the transaction timetable and the decision the report needs to support.

What the pilot answers

Is useful satellite coverage available? Does the site show a measurable history? How does it compare with its neighbourhood? Is specialist follow-up proportionate?

Where it fits

Acquisition and lending due diligence | development review | industrial and logistics sites | refinancing | refurbishment | portfolio monitoring

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 with a local reference framework. LOS combines vertical and horizontal motion; negative values are movement away from the satellite, not direct vertical-settlement estimates. The public reference site demonstrates the due diligence format and is not a named commercial property or transaction.