



# Foundation Report:

**3005 26th Street  
Vernon, BC  
V1T 4T9**



**Report prepared for:** [REDACTED]

**Report prepared by:** Jordan Theoret - Project Manager

**Date of inspection:** February 17th, 2025

**Purpose of report:** Assessment of foundation

**Scope of assessment:** Assessment of foundation and drywall cracks



**Disclaimer:**

This report is provided solely for informational and assessment purposes based on the observations and data available at the time of inspection. Armourclad Concrete Inc. does not assume any responsibility for legal, regulatory, or compliance matters that may arise in connection with this report. The findings and recommendations presented herein should not be interpreted as a guarantee of structural integrity or future performance. It is the responsibility of the property owner or relevant parties to consult with legal, engineering, or regulatory professionals as needed for compliance with applicable building codes, municipal regulations, or other legal requirements.

## Foundation Type and Construction:

The existing foundation appears to be a poured concrete structure with a footing extending below the frost line, which suggests that the primary foundation of the house remains stable. However, the movement of the porch has likely contributed to visible cracking in adjacent areas and could continue to cause further structural concerns if left unaddressed.

## Crack Mapping:

### Exterior Cracks:



### Classification of the Crack:

**Type:** Diagonal settlement crack

**Location:** Stucco exterior near the window and foundation

**Cause:** Differential movement between the main house and the sinking porch foundation

**Signs of Structural Stress:** The crack originates near the window frame, which is a common stress point in foundation movement cases.

1.a



1.b



1.c

## Classification of the Crack:

**Type:** Severe settlement crack / separation

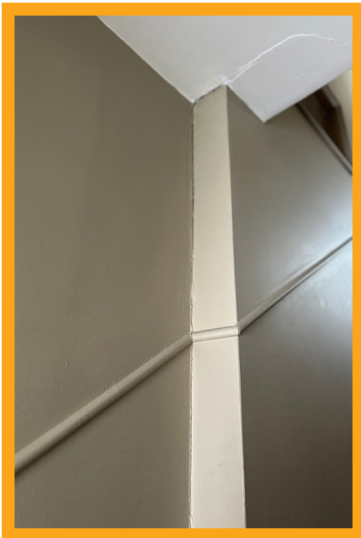
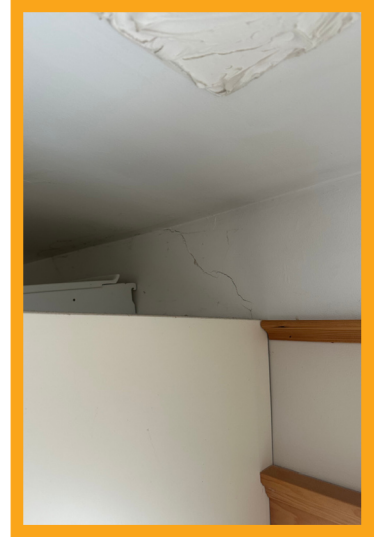
**Location:** Base of the porch foundation, near the junction with the main structure

**Cause:** The porch foundation is sinking, causing detachment from the main structure

**Severity:** Significant - Visible separation, material loss, and crumbling

Same crack pictured in 1. b after material has been removed.

## Interior Cracks:



The observed drywall cracks inside the home are consistent with the ongoing settlement of the porch foundation. As the porch sinks and shifts, it places differential stress on the main structure, leading to cracking in the interior finishes, particularly near windows, doors, and wall intersections.

Given the correlation between exterior foundation cracks and interior drywall damage, this further supports the porch as the primary source of settlement-related stress. If left unaddressed, continued movement may lead to progressive interior damage and further structural strain on the adjoining areas of the home.



## Structural Assessment and Conclusion:

The cracking observed throughout the home appears to be indicative of differential settlement in the front porch area, causing stress on the structure of the house. The lack of foundation cracks in the main house foundation and the presence of a large crack at the transition point between the house and the porch foundation further suggest that the porch has been shifting and sinking independently from the main structure.

The existing foundation appears to be a poured concrete structure with a footing extending below the frost line, which suggests that the primary foundation of the house remains stable. However, the movement of the porch has likely contributed to visible cracking in adjacent areas and could continue to cause further structural concerns if left unaddressed.

## Recommended Repair Solution:

To mitigate further movement and stabilize the affected area, we recommend injecting polyurethane beneath the existing porch foundation. This method will solidify and densify the bearing soils, increasing their load-bearing capacity and reducing settlement risks.

The process involves:

- Drilling small access points along the foundation perimeter
- Inserting injection rods beneath the foundation depth
- Injecting a high-density geotechnical polyurethane that expands to fill voids and improve soil stability
- Monitoring for uniform lift and stabilization

This approach is the least disruptive and most effective solution for a heritage building, as it minimizes excavation, structural damage, and downtime while reinforcing the foundation.





We also recommend cleaning and unclogging the perimeter drainage system to ensure proper water management and prevent soil erosion that could contribute to further instability. Poor drainage can accelerate foundation movement, so addressing this issue will help protect the home's structural integrity long-term.

## Conclusion:

The drywall cracks and foundation crack is a clear indicator of ongoing foundation movement. Timely intervention is necessary to prevent worsening structural damage. The recommended approach remains soil stabilization using polyurethane injection, drainage improvements, and crack repair post-stabilization.

With these repair measures in place, the porch foundation will be reinforced, reducing further settlement and mitigating the risk of additional structural damage. Should movement continue after stabilization, further assessments may be required to determine if additional structural reinforcement is needed.

End of document.