



City of Laguna Niguel
Building Division
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MINIMUM CRITERIA FOR GEOTECHNICAL REPORTS UNDERPINNING PROJECTS

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Minimum Criteria for Geotechnical Reports Supporting Proposed Underpinning Projects

1. A description of the property including a detailed discussion of slopes adjacent to the property.
2. Geologic description of the subsurface materials underlying the lot (i.e., depth of fill, bedrock description, geologic structure).
3. A description of the distress.
4. A floor level elevation survey.
5. Soil borings/exploration to at least to the depth of the proposed underpinning.
6. Supporting Geotechnical lab data including but not limited to – moisture and density, expansion testing, shear strength, and soil corrosivity testing.
7. Conclusions with regard to:
 - a. Causal distress mechanism(s).
 - b. Likely depth and lateral extent of repair needed (must be shown on map or aerial image).
 - c. Whether underpinning needs to be designed for lateral loading (i.e., due to slope creep, LFE, etc.).
8. Recommendations for the proposed underpinning:
 - a. Aerial location and depth.
 - b. Vertical soils resistance design values.
 - c. Lateral loading and lateral soil resistance (if needed based on causal mechanism).
9. A discussion of how and to what extent the underpinning will remediate the identified causal mechanism(s).
10. A discussion as to whether the remediation will fully mitigate the distress or whether there is a significant potential for future distress (i.e., to due to variables which are too difficult or costly to assess) along with a description of that distress if appropriate.
 - o If future distress is a potential, then the homeowner will need to provide an acknowledgement letter.