

# **TOWN OF PARADISE VALLEY**

## Hillside Safety Manual



Town Council  
February 13, 2020



# Hillside Safety Manual

Ordinance 2018-09 was adopted by the Town Council on June 14, 2018 and added the Hillside Safety Improvement Measure and Process Manual into the Town Code under Section 5-10-9.

## Hillside Safety Improvement Measure and Process

“That a certain document, known as the Hillside Safety Improvement Measures and Process Manual, Town of Paradise Valley (three copies of which are on file in the office of the Town Clerk of Paradise Valley, Arizona and also available to the public online at the Town of Paradise Valley website) is adopted as part of this chapter as if fully set forth in this section.”

# Hillside Safety Improvement Plan

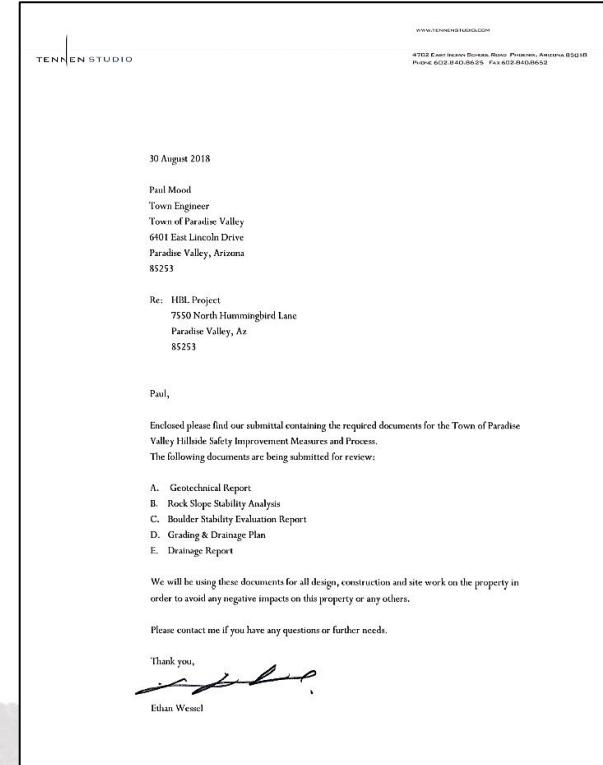
- Hillside Safety Improvement Plan (SIP)
  - Mitigate safety issues on Hillside properties during and after construction
  - Properties within 1,500 ft radius notified of proposed SIP
  - 45 day review period
  - SIPs reviewed by staff and available for public review/comments
  - Public comments must be by a registered engineer in an appropriate field
- Hillside Assurance Requirements
  - Increased assurance fee for hillside properties
  - 35x Grading Permit Fee
- Hillside Insurance Requirements
  - Prior to the issuance of a building permit, the applicant shall submit an insurance certificate to the Town Attorney's Office
  - Minimum limit of \$2 million per occurrence and \$5 million aggregate, naming the Town as additional insured



# Hillside Safety Improvement Plan

## Requirements

1. Cover Letter/Memo
2. Geotechnical Executive Summary
3. Geotechnical Investigation Report w/ Seismic Refraction Survey
4. Geotechnical Rock Cut Slope Analysis
5. Geotechnical Boulder Stability Evaluation
6. Drainage Executive Summary
7. Drainage Report
8. Grading and Drainage Plan
9. Notification Materials
10. Stabilization & Mitigation Plan and Blasting Plan (if needed)



# Submission and Notification Procedure

1. Safety Improvement Plan submitted to Staff
2. Staff reviews submittal for completeness
3. If deemed complete, Staff requests that notification letters be sent out
4. Residents within 1,500' of the property lines will receive notifications regarding the SIP submittal
5. An Affidavit of Mailing shall be submitted to staff
6. A 45-day comment window starts on the day of mailing

## Hillside Safety Improvement Plan Review Notification

August 31, 2018

Subject: Hillside Safety Plan Review for New Home on Hillside Lot

Dear Property Owner:

An application has been submitted to the Town of Paradise Valley for a new home at 7550 N. Hummingbird Lane, Paradise Valley, AZ 85253. In compliance with Town requirements, this letter is being sent to notify you that a Hillside Safety Improvement Plan has been submitted to the Town of Paradise Valley and is available for review and comment at the Town Engineering Department (located at 6401 E. Lincoln Drive).

The S

## AFFIDAVIT OF MAILING NOTIFICATION

STATE OF ARIZONA )

) ss:

County of Maricopa )

In accordance with the requirements of the Town of Paradise Valley, the undersigned hereby certifies that the mailing list for the proposed project is a complete list of property owners within 1500 feet of the subject property, as obtained from the Maricopa County Assessor's Office on the following date AUGUST 31, 2018 and such notification has been mailed on the following date AUGUST 31, 2018.



Signature



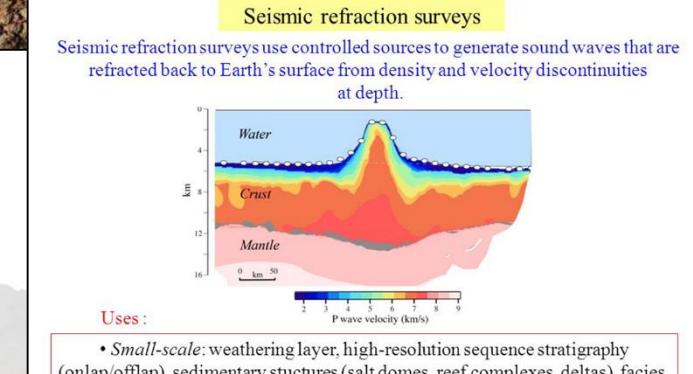
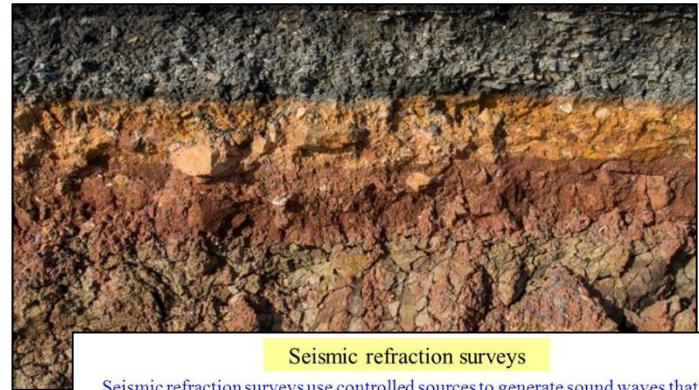
# 45-Day Comment Period

- Applicant may not participate in a Hillside Combined Review or Formal Review Meeting until comment period window expires
- Staff will review Safety Improvement Plan and may provide comments
  - Town Engineer
  - Building Official
  - Hillside Development Administrator
- Residents may hire a registered professional to generate comments on the SIP
  - Only comments generated by a registered professional engineer will be accepted by the Town



# Geotechnical Requirements

1. Geotechnical Report
  - Standard geotechnical report for hillside foundation design
  - Investigate presence of groundwater
2. Seismic Refraction Survey
  - Used to investigate subsurface ground conditions using specialized instrumentation
  - Limits increased to 200' from structure
3. Slope Stability Analysis
  - Analysis of existing or proposed cuts
  - Used to determine stability of cuts
  - Stabilization methods are proposed
4. Boulder Survey
  - Boulders are classified as rocks with a diameter of 36" or greater
  - Boulder stability is analyzed and stabilization methods are proposed



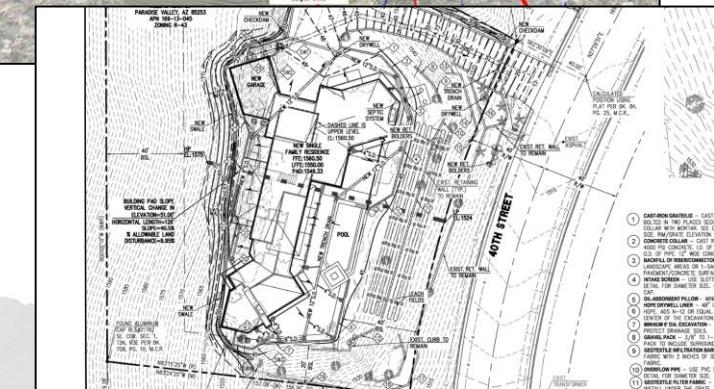
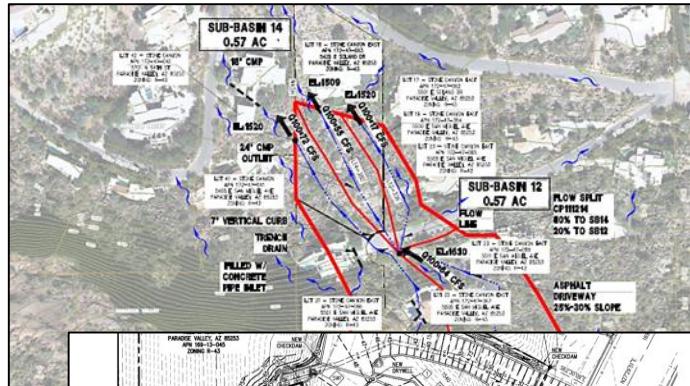
# **Grading & Drainage Requirements**

## 1. Drainage Report

- Standard drainage report for Hillside site design

## 2. Grading & Drainage Plan

- Must be in compliance with the 2018 Town of Paradise Valley Storm Drainage Design Manual
- Pre vs. Post retention is required for Hillside Lots
- Retention volumes are on a sliding scale
- 10% slope = 100% required retention volume
- 30% slope = 0% required retention volume
- Hillside lots must retain at minimum the “first flush” volumes



# General Concerns

1. Slope Stability Failure
  - Standard geotechnical report for hillside foundation design
2. Boulder Stabilization Failure
  - Used to investigate subsurface ground conditions using specialized instrumentation
3. Drainage Deficiencies
  - Analysis of existing or proposed cuts
  - Used to determine stability of cuts
  - Stabilization methods are proposed



# Potential Hillside Safety Manual Updates

- The Town's Engineering Department would like to see:
  - Safety Improvement Plan Insurance requirements started at demolition stage rather than the construction stage.



# Hillside Safety Improvement Plan Comments

- Comments previously received
  - Safety Improvement Plan adds additional costs
  - Safety Improvement Plan adds additional time to the approval process with 45 day comment period



# **Hillside Safety Improvement Plan**

- Town Council previously discussed whether or not the Hillside Safety Manual text should be added to the Town Code in lieu of having only the Manual referenced in section 5-10-9.
- Does Council want to keep the Town Code Section 5-10-9 as is or does Council desire to have the full text of the Safety Manual added to the Town Code?



# Questions?

