Executive Summary
As a result of recent slope erosion and rocks falling onto Warm Springs Avenue and Starview Drive in the area of the mesa, ACHD staff has prepared a plan for an interim safety treatment ("Plan") for Starview Drive. The Plan consists of the placement of 100-lineal feet of concrete guardrail sections along the toe of the slope on Starview Drive as shown on the attached exhibit. The Plan was prepared in substantial conformance with current engineering and design standards. Staff seeks Commission approval and adoption of the Plan as the satisfactory interim treatment to increase the safety to the traveling public until a more permanent solution can be analyzed, engineered, and financed. Upon approval and adoption of the Plan, ACHD Maintenance staff will complete the work in accordance with the Plan and notify the Commission of such completion.

Background
The Warm Springs Mesa area is an active geological landslide area. The area experiences periodic erosion of the slope (and falling rocks) above Warm Springs Avenue and Starview Drive in several areas from Windsong Drive to and including Starview Drive. These occurrences typically happen in winter months following heavy rain and freeze/thaw events.

During the past 2016/2017 winter storm events boulders have landed on Warm Springs Avenue and Starview Drive. Warm Springs Avenue and Starview Drive were immediately closed to traffic and a local geotechnical firm, Terracon, was engaged to assess the situation and advise ACHD of potential future long term remediation options. While ACHD staff has been monitoring the area, Warm Springs Avenue continues to see boulders falling onto roadway. Starview Drive was cleaned on Monday January 30, 2017 by ACHD Maintenance crews. Since this cleaning, no additional material has fallen onto Starview Drive.

As a result, ACHD Engineering staff has prepared a Plan for an interim safety treatment consisting of the placing on 100-lineal feet of concrete guardrail sections along the toe of the slope, as shown on the attached exhibit. The plan was prepared in substantial conformance with current engineering and design standards.
This system offers additional safety to the traveling public, as it will add mitigation to Starview Drive. While it is not considered a final solution for this area, it offers an interim treatment that is much safer than before the recent erosion events. The Plan reflects constraints upon ACHD in this situation including, but not limited to: topography, access, and current weather patterns.

ACHD Maintenance personnel will complete the placement of the 100-linear feet of concrete guardrail sections along the toe of the slope in accordance with the Plan shown. ACHD Traffic Operations will also apply additional signage and lane markers in order to alert the traveling public of the lane modifications. ACHD Maintenance staff will notify the Commission upon full completion of the work. Additionally, Engineering and Maintenance staff will continue to closely monitor the area, and proposes to address a long term solution moving forward.

Development of a long term solution will include compiling, reviewing, and scoping all previous and current data and various alternative projects for this area. New or revised alternatives will be developed, analyzed and vetted with the public, elected officials, and considered for design and implementation. It is anticipated that Terracon will present an initial list of potential options for further consideration by the end of March 2017.

**Recommendation**
Staff recommends that the Commission approve and adopt the Plan as discussed herein and as shown on the attached exhibit, as a satisfactory interim treatment to increase the safety to the traveling public along this section of Starview Drive until a more permanent solution can be analyzed, engineered, and financed.