7.17. TERRAIN MANAGEMENT.

- 7.17.1. Purposes. This section is intended to:
 - 7.17.1.1. Protect water quality and the natural character of the land;
 - 7.17.1.2. Minimize soil and slope instability, erosion, sedimentation and storm water runoff;
- 7.17.1.3. Protect and retain rugged and steep terrain, natural landmarks and prominent natural features as open space;
- 7.17.1.4. Adapt development to the existing natural topography, soils, vegetation, geology, hydrology, landforms and other conditions existing on a lot or parcel prior to development by:
 - 1. Proper vegetation management techniques;
 - 2. Minimizing cuts and fills and earth grading;
 - 3. Blending graded areas with undisturbed natural terrain; and
- 4. <u>Minimizing the amount of exposed raw earth at any time in a project by careful phasing of development and revegetation;</u>
- 7.17.1.5. Preserve natural drainage patterns and recharge groundwater protect the public from the natural hazards of flooding, erosion and landslides; [page] 159
 - 7.17.1.6. Encourage minimum disturbance to the natural areas of a site by;
- 7.17.1.7. Appropriately locate roads, driveways and utilities so as to minimize unsightly cut and fill areas, and scarring; and
 - 7.17.1.8. Provide passive irrigation of landscaped areas.
 - 7.17.2. Applicability. All development shall comply with the standards of this subsection.
 - 7.17.3. Buildable Area.
- 7.17.3.1. Development shall occur only within the area designated for building on the final plat. If there is no buildable area designated on the plat, then the Administrator shall designate a buildable area upon request.
- 7.17.3.2. A buildable area shall include the footprint of the proposed structure, a working area extending thirty feet from the structure, and any areas of expected site disturbance necessary for construction, all of which shall not be less than 2,000 square feet.
- 7.17.4. No Build Areas. No build areas shall be identified on any plat and on any site development plan. No build areas shall include:
 - 7.17.4.1. Rock outcropping, wetlands, riparian areas, arroyos and natural drainage ways;
 - 7.17.4.2. Setbacks from ridge tops and ridges, natural streams and drainage ways; and
 - 7.17.4.3. Areas with natural slopes of thirty (30) percent or greater.
 - 7.17.5. Storm Drainage and Erosion Control.
 - 7.17.5.1. General.
- 1. No fill shall be placed in natural drainage channels and a minimum setback of twenty five feet shall be maintained from the natural edge of all streams, rivers, or arroyos with flows exceeding twenty-five (25) cubic feet per second during a one hundred (100) year frequency storm, twenty-four (24) hour duration;
- 2. Any area of periodic flooding shall be identified as a no build area and shall be included within a drainage easement; and
- 3. Any ponding areas used in drainage control facilities shall be revegetated and integrated into landscaping.
- 7.17.5.2. All Other Development. Subdivision, multi family, non-residential and single family residential development shall comply with the following standards:
- 1. Drainage structures shall be designed and sized to detain or safely retain storm water on site.

- 2. Storm drainage facilities shall have the sufficient carrying capacity to accept peak discharge runoff from the development;
- 3. The peak discharge of storm water resulting from the development shall not exceed the peak discharge calculated prior to the development and differences [page] 160

between pre- and post-development discharge shall be detained or retained on site. Calculation of the design peak discharge of storm water shall be based on a one hundred (100) year frequency, twenty-four (24) hour duration rainstorm;

- 4. No development shall disturb any existing watercourse or other natural drainage system, in a manner which causes a change in watercourse capacity or time to peak, time of concentration or lag time or other natural drainage system or increase of the pre-development stormwater discharge.
- 5. All natural drainage ways and arroyos which traverse or affect one or more lots or development sites shall be identified on the plan and/or plat.
- 6. Erosion setbacks shall be provided for structures adjacent to natural arroyos, channels, or streams such that: (a) a minimum setback of 25' shall be provided from all arroyos with flow rates of 100 cubic feet per second (100 cfs); or (b) a minimum setback of 75' shall be provided from all FEMA designated 100 year Floodplains.
 - 7.17.6 Grading, Clearing and Grubbing.
- 7.17.6.1. Prior to engaging in any grading, clearing or grubbing, a development permit shall be obtained. A development permit is not required to maintain a driveway or road; provided, however, that any major change in the driveway or road or a capital improvement to a road or driveway, shall require a development permit.
- 7.17.6.2. Grading and clearing of existing native vegetation shall be limited to approved Buildable Areas, road or driveways, drainage facilities, liquid waste systems, and utility corridors.
 - 7.17.6.3. Topsoil from graded areas shall be stockpiled for use in revegetation.
- 7.17.6.4. The boundaries of the development area shall be clearly marked on the site with limits of disturbance (LOD) fencing or construction barriers prior to any grading or clearing.
- 7.17.6.5. No grading is permitted within one foot of a property line, except for roads driveways and utilities.
 - 7.17.6.6. Temporary fencing shall be installed to protect natural vegetation.
 - 7.17.7. Restoration of Disturbed Areas.
- 7.17.7.1. <u>Disturbed areas not stabilized by landscaping shall be permanently revegetated to approximate the density and species or vegetation at the site prior to grading.</u>
 - 7.17.7.2. Abrupt angular transitions and linear slopes shall be stabilized.
- 7.17.7.3. All structures except retaining walls or soil stabilization improvements shall be set back from the crest of fills or the base of cuts for a minimum distance equal to the depth of the fill or the height of the cut, unless a structurally sound retaining wall is built for the cut or fill slope. Retaining walls may be part of a building.
 - 7.17.8. [Reserved]

[page] 161

- 7.17.9 Steep Slopes, Ridge tops, Ridgelines and Shoulders.
- 7.17.9.1 Applicability. This subsection applies to development of any <u>structure</u> on a slope whose grade exceeds fifteen percent (15%), areas where slope exceeds thirty percent (30%) and to a ridge, ridge top, ridgeline or shoulder.
 - 7.17.9.2 Standards.
- 1. No structure may be constructed on a ridge top, ridgeline or shoulder unless there is no other buildable area on the property. Only single story structures are allowed on ridges, ridge tops and shoulders.

- 2. A buildable areas on a ridge top, ridgeline or shoulder shall be set back 50 feet from the shoulder. The shoulder is the point at which the profile of the upper slope begins to change to form the slope.
- 3. No structure may be constructed on a natural slope of thirty percent (30%) or greater.
- 4. Utilities and access roads and driveways may be located on a natural slope in excess of thirty percent (30%) so long as they disturb no more than three separate areas not exceeding 1,000 square feet each. Drainage structures and slope retention structures may be located on a natural slope in excess of thirty percent (30%).
- 5. No structure may be constructed on a slope where evidence exists of instability, rock falls, landslides, or other natural or man-made hazards.
- 6. The finished floor elevation of any structure built on a natural slope between fifteen percent (15%) and thirty percent (30%) shall not exceed five feet above the natural grade at any point.
 - 7. No significant tree may be removed from slopes greater than thirty (30) percent. 7.17.9.3 Height.
- 1. The height of any structure located on land that has a natural slope of fifteen percent (15%) or greater shall not exceed eighteen feet (18'). The distance between the highest point of the structure and the lowest point at the natural grade or finished cut shall not exceed thirty (30) feet, unless the portion of the slope over fifteen percent (15%) is incidental to the entire site. [page] 162

Figure 7.6: Height of Structures in Steep Slope Areas. [See Figure in SLDC]

- 2. Structures on ridges, and ridgelines and shoulders shall not exceed fourteen (14) feet in height and shall be limited to one story. However, a structure on a ridge or ridgeline that is a one story pitched roof structure shall not exceed eighteen (18) feet in height so long as the structure is screened from view from an arterial or major arterial road.
 - 7.17.9.4. Architectural and Appearance Standards.
- 1. A Structure located on a slope in excess of fifteen percent (15%) shall be designed to conform to the natural terrain by following contours to minimize cuts and fills, fitting into existing landforms and solidly meeting the ground plane. Any pier foundations shall be enclosed so that exterior walls appear to meet the ground and such a foundation system shall not exceed five vertical feet above the natural grade.
- 2. Buildings should be designed within variations in height and orientation, and within offset walls to reduce the visible mass or bulk.
- 3. Roof colors, windows, walls and facade colors visible from adjacent properties or from arterial or collector roads shall be muted and of non-reflective or non-glossy materials with a Light Reflective Value (LRV) of less than 40 pursuant to manufacturers specifications.
- 4. Landscaping shall be provided for cut and fill slopes greater than four feet. Landscape shall be provided for the facade of buildings located on ridge tops or 15 percent slopes or greater that are visible from arterial or collector roads. A minimum of 50 percent of the visible portion of a cut and fill slope and facade shall be landscaped. Trees shall be planted or retained within 15 feet of all retaining walls to be screened and in an area no less than 25 feet and no more than 50 feet from any facade to be screened. In the event of a conflict between the requirements of this paragraph and the Santa Fe County Urban Wildland Interface Code on a particular property, screening shall be provided, but at a distance consistent with the requirements of Urban Wildland Interface Code. If the lot size does not permit compliance with both the requirements of this paragraph and the Urban-Wildland Interface Code, the latter shall apply.