

# Memo

**To:** Kanab City Planning Commission  
**From:** Levi Roberts, Associate Planner  
**cc:** Joe Decker, Interim City Manager; Gary McBride, Business/Land-use Coordinator  
**Date:** January 21, 2014  
**Re:** Sensitive Lands Ordinance review: Section 11.8

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During the December 17 Planning Commission meeting, Staff recommended the following structure for reviewing the Sensitive Lands Ordinance, in preparation for recommending an amendment to the Land Use Ordinance:

1. Purpose and provisions of the ordinance (11.1, 11.2, 11.4, 11.9)
2. Development permit process, required documentation, and project compliance (11.5-11.7)
3. Development Standards (11.8)
4. Definitions (11.3)

The Planning Commission discussed and reached consensus upon section 1 and 2 of the process. The purpose of this memo is to discuss and recommend changes for section 3 of the process (11.8).

## **Section 11-8 Development Standards**

Section 11-8 of the draft ordinance includes the development standards for development occurring within sensitive lands areas. The majority of the standards apply to development within hillside areas, but there are also standards for ridgeline, wetlands and high water table areas. The standards are meaningful to implement the sensitive lands ordinance.

### *Hillside Areas*

Standards for hillside areas in the draft ordinance include open space requirements, architectural, landscaping, retaining wall and grading standards, and disturbance limitations. The standards, collectively, include measures which aim to accomplish the provisions set forth in Section 11-2, including preserving views and avoiding hazardous and adverse conditions. According to staff's review of the ordinance, the provisions related to hillsides are appropriate to accomplish these provisions, which coincide with the goals and objectives set forth in the General Plan.

Some minor changes are recommended to improve the clarity and consistency of the ordinance. The first is to re-organize the standards related to hillside areas, so that they all fall in one section. In the current draft, there are provisions specific to hillsides that may be otherwise unclear where they apply if they are not included in a hillside area section. Secondly, Staff recommends changing the Hillside Area Classification, so that they coincide with the currently recommended hillside designation of 20%. This is a minor change, from a 15% to 20% interval for this classification.

#### *Wetland Areas*

This short section related to development standards in wetland areas basically states that development is not permitted in wetland areas. This is not included in other City ordinances and should be included in this Chapter to protect life and property from hazardous conditions.

#### *High Water Table Areas*

The standards included in this section, include various measures that aim to protect life and property from hazardous conditions, including standards related to basements and drainage. Staff does not have any recommendations to change this section of the draft ordinance

#### *Surface of Subsurface Drainage*

The draft ordinance includes specific standards for drainage systems related to all new development. Section 3-4 of the *Kanab Standard Specifications for Design and Construction* already includes Drainage and Flood Control Design Standards, which address issues related to drainage with new development. Staff recommends omitting this section from the Sensitive Lands Chapter of the Land Use Ordinance to reduce duplication and possible contradictions.

#### *Floodplain Areas*

The Draft Ordinance does not currently include a section about floodplains. The *Kanab Flood Damage Prevention Ordinance* includes standards for development in floodplain areas. Staff recommends including a section for Floodplains, which references this Ordinance.

### **Summary of Recommendations**

- Re-organize certain sections of the ordinance that relate to standards for hillside areas to improve clarity and consistency of the ordinance.
- Change the intervals for Hillside Classification areas to coincide with other section of the Ordinance related to hillside areas.
- Omit 11-8.10 Surface and Subsurface Drainage
- Include a section which references the *Kanab Flood Damage Prevention Ordinance*.

## Section 11-8 Development Standards

11-8.1. All proposed development and improvements within a designated sensitive lands area are subject to the following required development standards. These standards are intended to provide a framework for development that is sensitive to the unique characteristics ~~of to hillside~~ properties developed in hillside, ridgline, wetland, floodplain, and high water table areas. Their purpose is not to discourage proposals for innovative or alternative methods of design in ~~a hillside~~ such areas; innovation is encouraged as long as the end result is one which respects significant landform features and is consistent with the purposes expressed in this chapter and in the goals and objectives of the Kanab City General Plan.

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11-8.2. ~~Hillside Overlay Zone Area~~ Classifications: Lands located within ~~the a Hillside Overlay Zone Area~~ shall be evaluated within the following slope ranges. Each slope category range delineates the relative suitability of land for development.

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11-8.2.1. Zero percent (0%) to ~~fifteen twenty~~ percent (~~±520~~%) ; flat to gently rolling land: Development with grading is permitted in this zone. These areas are still subject to the requirements of the excavation and grading permit requirements of the applicable building code.

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11-8.2.2. Greater than ~~fifteen twenty~~ percent (~~>1520~~%) to twenty five percent (25%); moderate hillside: Special hillside architectural and design techniques that minimize grading and harmonize the built and natural environments are required in this zone. Architectural prototypes and infrastructure elements are expected to complement the natural landform by using techniques required herein. Impact of streets and trails is to be minimized by following natural contours where practicable.

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11-8.2.3. Greater than twenty five percent (>25%) to thirty percent (30%); hillside: Development within this zone shall be restricted to slopes where it can be demonstrated with sufficient evidence to the Development Committee that slopes are safe and that environmental and aesthetic impacts can be

minimized. The use of larger lots, variable setbacks, and variable building structural techniques such as stepped or pole foundations are expected. Structures shall blend with the natural environment through their shape, materials, and colors. Impact of streets and trails is to be minimized by following natural contours where practicable.

11-8.2.4. Greater than thirty percent (>30%) to forty percent (40%); steep hillside: This is a sensitive slope condition and development is limited unless a specific exception is allowed by the city council as outlined in this chapter.

11-8.2.5. Greater than forty percent (40%); mountainous: This is a severe slope condition and development is prohibited unless a specific exception is allowed by the city council as outlined in this chapter.

11.8.2.6. Restrictions on potential development apply to ~~the hillside protection overlay zone~~ hillside areas in order to preserve the character of the natural terrain as much as possible. The following provisions shall be applied to development within ~~the Hillside Overlay Zone~~: hillside areas.

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**TABLE 11.1  
SLOPE AND REQUIRED OPEN SPACE**

| Slope Category<br>Percent Natural Slope | All Zones<br>Required Open Space |
|---|----------------------------------|
| 0% - <del>15</del> 20%                  | Underlying zoning applies        |
| > <del>15</del> 20% - 25%               | Underlying zoning applies        |
| >25% - 30%                              | 70 percent                       |
| >30% - 40%                              | 90 percent                       |
| >40%                                    | 100 percent                      |

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**11-8.3. Hillside Area Development Standards:** the following development standards apply development occurring in hillside areas, as defined in this Ordinance.

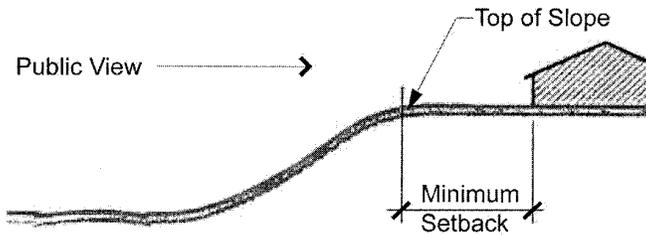
**11-8.3.1. Architectural Standards:** The purpose of establishing architectural design standards in hillside areas is to ensure quality development that blends with the environment and to create neighborhoods that display harmonious and complementary architectural styles. To achieve sensitive lands-

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compatible development, the City recognizes the importance of having architectural design that incorporates low profile rooflines and other building elements which reflect the naturally occurring ridgeline silhouettes and topographical variations.

11-8.3.1.1. Building Orientation and Setbacks: A variety of building and lot orientations shall be provided in order to encourage development suitable with the hillside character of the site. Unless a greater setback is recommended in the geotechnical report or the structure is located on a prominent ridgeline where a greater setback applies as detailed herein, a minimum building setback of fifteen feet (15') from top of slope and/or an average setback of fifteen feet (15') shall be provided from the edge of the pad.

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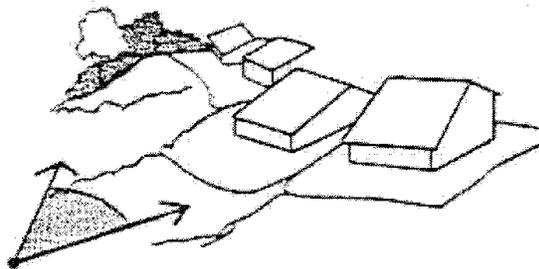


11-8.3.1.2. Viewshed Protection:

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11-8.3.1.2.1. Structures shall be designed so the slope angle of the roof pitch is generally at or below the angle of the natural hillside or graded slope.

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Public Viewshed

11-8.3.1.2.2. Site planning shall emphasize the preservation of views to prominent visual features such as ridgelines, as viewed from within and outside the hillside development. This includes building orientation to allow view opportunities and locating buildings on the least sensitive portions of the site so as to preserve landforms, vegetation and topographical features.

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11-8.3.1.2.3. Hillside buildings shall be stepped to follow the contours of the slope. For aesthetic reasons, exterior structural supports and undersides of floors and decks not enclosed by walls are discouraged but may be permitted with fire safety and architectural considerations adequately addressed to the satisfaction of the city.

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11-8.3.1.3. Building Style: Architectural styles shall be compatible with the environment character, topography, and theme of the community. Hillside adaptive architecture, as described below, shall be used within the Hillside Area:

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11-8.3.1.3.1. Buildings shall be stepped as necessary to minimize grading.

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11-8.3.1.3.2. A variety of roof orientations and types which emphasize roof pitches reflecting the overall slope of the hillside shall be incorporated into the design of the buildings.

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11-8.3.1.3.3. Enhanced architectural elevations are required where the front, rear or side of units face public view. Units shall avoid

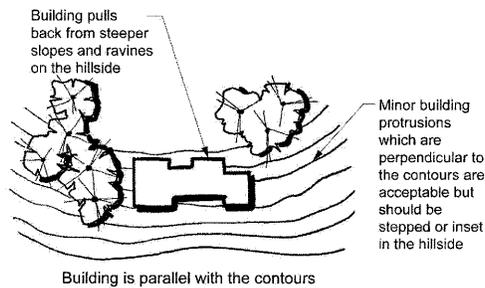
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massive walls and monotonous patterns of building silhouettes to the satisfaction of the city council.

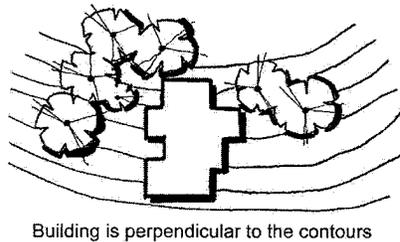
11-8.3.1.3.4. The dimensions of a building, measured in the direction of the slope shall be minimized in order to limit the amount of cut and fill and to better incorporate the structure to the natural terrain.

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11-8.3.1.3.4. Buildings may be clustered to respect and adapt to the existing topography. Flexible siting techniques including varying the position of the structures and varying the sizes of lots shall be used as necessary to preserve the character of the hillside setting.

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11-8.3.1.4. Architectural Treatments: Publicly visible exterior walls of any building shall be designed to avoid monotonous or continuous facades. A single, continuous vertical or horizontal plane on the front and rear facade of any building

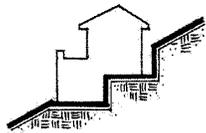
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is not permitted. Architectural features and details shall be incorporated in all exterior walls of the building, including the rear and sides of the building. Buildings may utilize wall articulation (i.e., insets, pop outs, etc.) and roof orientation as a means to break up the massing.

11-8.3.1.4.1. The form, mass and profile of the individual buildings and architectural features shall be designed to blend with the natural terrain and preserve the character of the natural slope. Avoid the use of large gable ends on downhill elevations. The predominant roof slope shall be oriented in the same general direction as the natural slope.

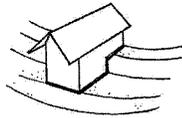
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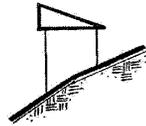


Roof slope approximates that of hillside and follows its direction, building hugs ground form better

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Avoid large gable ends on downhill elevations



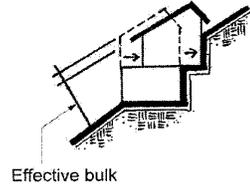
Angular forms which slope in the opposite direction to the slope of the hill destroy the relationship of the hillside and building and increase the effective bulk

11-8.3.1.4.2. Avoid large roof overhangs and cantilevers on downhill elevations to reduce the massive appearance from below.

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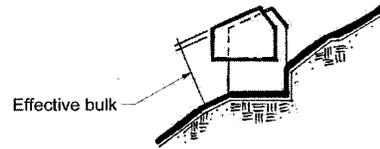
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Terracing reduces bulk



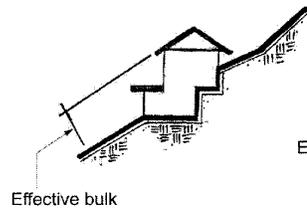
Effective bulk

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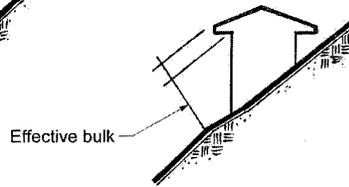
Effective bulk

Cantilever makes building appear taller, more monumental



Effective bulk

Smaller overhangs for individual floors or windows help break-up mass and protect against excessive sunlight



Effective bulk

Excessive roof overhang results in additional visual bulk

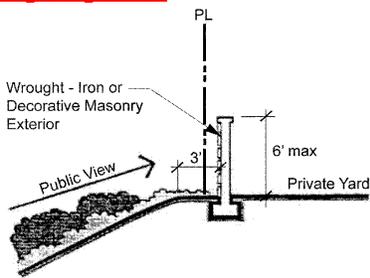
11-8.3.1.5. Finish Materials, Color, And Reflectivity: Building materials and colors shall blend with the natural setting. The color, material and texture palette shall be reinforced with compatible landscaping consistent with the landscaping requirements of this chapter. The light reflective value (LRV) of materials used on all exterior walls and roof areas shall be similar to the LRV of the surrounding terrain. The building material colors and their LRVs shall be submitted with the final application.

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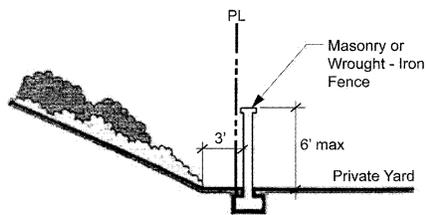
11-8.3.1.6. Fencing And Privacy Walls: All fences and privacy walls adjacent to or clearly visible from public roads or parks shall be either virtually transparent (such as wrought iron fencing) or constructed of materials which have a natural appearance and color that blends with the surrounding environment and is complementary to the landscape. The applicant shall present illustrations, sample materials, and descriptions of fencing and wall materials to demonstrate compliance with the requirements of this subsection.

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All walls and fences adjacent to or visible from public roads shall be set back from the road right of way by a minimum of six feet (6') (or greater where cited elsewhere in this code) landscaped area on the street side of the wall or fence. Additionally, walls and fences not exceeding six feet (6') in height are permitted adjacent to structures in order to provide a private outdoor area. A minimum flat area from top or toe of slope of three feet (3') or more as required by the adopted building codes of the city shall be maintained to face of wall on slopes with slope heights of thirty feet (30') or greater as per the following diagrams:



Top of Slope Wall



Toe of Slope Wall

**11-8.3.2. Hillside Landscape Design Standards:**

11-8.3.2.1. Landscaping shall be designed to stabilize graded slopes, prevent erosion and be compatible with surrounding natural vegetation.

11-8.3.2.1.1. Cut Or Fill Slopes: All plant material used on cut or fill slopes shall be as

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nearly compatible with plant material found on adjacent undisturbed hillsides as possible. Such slopes shall use Xeriscaping landscape methods with no irrigation systems allowed on or adjacent to the slope itself.

11-8.3.2.1.2. *Pad Sites Or Flat Areas:* All plant materials on pad sites or relatively flat areas shall be of a desert type requiring little or no irrigation. Hand watered fired pots or other similar watertight containers may be used to hold additional landscape materials. Any lawn area shall consist of artificial grass. Rocks and colored or natural stones make desirable landscape materials for pad areas. Any other proposed landscaping shall be specifically approved by the city council and should consist of low water plantings with minimal irrigation requirements.

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11-8.3.2.1.3. *Terraced Areas:* On terraced areas between retaining walls, minimal desert type landscaping may be considered using the same methods as used for pad sites.

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11-8.3.2.1.4. *Slope And Landscape Maintenance:* Homeowners' associations (HOAs) and assessment districts or other acceptable legal entities are required in the HP zone to maintain common open space. All landscaped slopes not included within a landscape maintenance district (LMD) shall be maintained by an HOA or a property owners' association (POA) for the permanent maintenance of landscaped slopes and other areas. An HOA or POA shall be required to establish a maintenance district with responsibility for maintenance. Should the HOA disband or neglect their duties to maintain the slopes and landscaping, the city may contract with a landscape maintenance contractor for ongoing maintenance and place a lien against any and all private or common areas in the project to ensure repayment to the city of any incurred expense.

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11-8.3.2.2. Prior to an occupancy permit being issued, landscaping plans for individual homes

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within any development must be reviewed and approved by the city to assure compliance with this chapter and any conditions imposed during the hillside development permit process.

11-8.3.3. Retaining Walls: The purpose and intent of establishing development standards for retaining walls is to ensure that the retaining walls are structurally sound and are not visually intrusive. The location of all retaining walls, privacy walls, and fences along with their proposed heights, materials and colors, shall be shown on the grading plan and concept plan. All retaining walls, privacy walls and fences shall be located within the maximum limits of disturbance for each lot or parcel.

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11-8.3.3.1. General Standards:

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11-8.3.3.1.1. The maximum length of any continuous retaining wall shall not be more than two hundred (200) linear feet.

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11-8.3.3.1.2. Retaining walls shall be used for the purpose of containing fill material or for minimizing cut or fill slopes. The retaining wall may only extend six inches (6") above the material it is retaining.

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11-8.3.3.1.3. A retaining wall shall not block or restrict vehicular access to a dedicated or implied dedicated alley, accessway, pedestrian access, trail, sidewalk, easement, or right of way.

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11-8.3.3.1.4. All retaining walls, privacy walls and fences surrounding a development's perimeter shall be faced with stone or earth colored materials that blend with the color and texture of the surrounding natural landscape.

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11-8.3.3.1.5. Curved retaining walls that follow the natural contours are strongly recommended, but not required.

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11-8.3.3.1.6. All retaining walls as well as all freestanding walls and fences shall comply with the adopted building codes of the city.

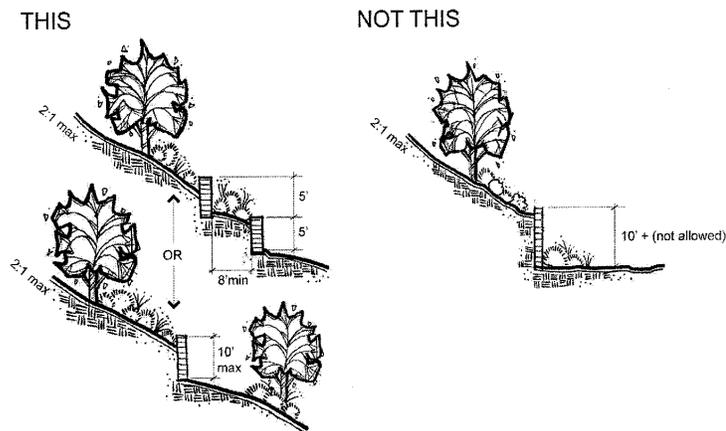
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**11-8.3.3.2. Height Standards:**

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**11-8.3.3.2.1.** No portion of a retaining wall shall exceed nine feet (9') in height as measured from the immediately adjacent lowest natural or finished grade to the top of wall unless it can be demonstrated in the overall mitigation plan for cuts and fills that taller walls will not detract from the surrounding terrain. Retaining walls shall not be stacked or terraced in any manner that increases their combined height beyond nine feet (9'). If desired, two (2) subwalls may be stacked or terraced to a maximum combined height of nine feet (9'). A minimum separation of six feet (6') is required between subwalls as measured from face of wall. The separation area between the sets of subwalls shall be planted with low water use/low maintenance shrubs or other vegetation as approved in the landscape plan. This vegetation will help reduce the apparent visual height of the walls. Tree planting in the zone between subwalls requires a separation of at least twenty feet (20').

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**11-8.3.3.2.2.** For purposes of this subsection, retaining walls are not considered stacked or terraced if there is a minimum horizontal separation of ten feet (10') between sets of retaining walls. With the minimum ten foot (10')

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separation, each retaining wall set may be constructed to the maximum allowed height; either the nine foot (9') height or the taller height demonstrated that would not detract from the surrounding terrain. The separation area between the sets of retaining walls shall be planted with low water use/low maintenance shrubs or other vegetation as approved in the landscape plan. No more than three (3) adjacent retaining walls (or 27 feet in total height) will be allowed, unless specifically approved by the city council.

11-8.3.3.2.3. Retaining walls may be constructed to varying heights throughout a development.

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11-8.3.3.2.3.1. Retaining walls constructed in the side yard area between two (2) homes shall not exceed a height of four feet (4'); provided that such wall does not extend into a required front yard setback adjacent to a street.

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11-8.3.3.2.3.2. Retaining walls constructed in the rear yard area of a lot shall not exceed a height of eight feet (8').

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11-8.3.3.2.3.3. All planting areas between and adjacent to retaining walls shall be provided with an automatic irrigation system suitable for low water use vegetation. Such irrigation system shall be approved and inspected prior to the construction of any wall.

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11-8.3.3.2.3.4. Where a retaining wall contains fill above the natural grade and is located within a required setback yard, the height of the retaining wall shall be considered as contributing to the permissible height of a fence or wall at that location. A nonview obscuring fence up to three and one-half feet (3.5') in height may be erected at the top of the retaining wall for safety.

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11-8.3.3.2.4. Retaining walls not exceeding six feet (6') in height are permitted adjacent to

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structures in order to provide a private outdoor area.

11-8.3.4. **Disturbance Limitations:** The following criteria shall be applied in establishing the limits of disturbance for a site:

11-8.3.4.1. Adverse visual impacts from within and without the development shall be minimized unless doing so precludes another objective of this chapter. The screening of cuts and fills, and the visual protection of prominent ridgelines, rock outcroppings, scenic views, and the natural terrain is required unless doing so precludes another objective of this chapter.

11-8.3.4.2. Disturbed slopes should be treated to minimize erosion, and natural drainageways shall be protected unless doing so precludes another objective of this chapter.

11-8.3.4.3. The clearing of trees, shrubs and other native vegetation should be limited to:

11-8.3.4.3.1. The approved locations for streets, driveways and easements.

11-8.3.4.3.2. The approved locations for building pads for structures, other main buildings and accessory structures.

11-8.3.4.3.3. The minimum distance between structures and surrounding vegetation for established fire prevention and safety standards or recommendations.

11-8.3.4.4. Significant trees, shrubs and other native vegetation should be preserved in the design of the development. Significant vegetation is to be identified on a map with the application submittals.

11-8.3.4.5. All topsoil from any disturbed portion of the site should be preserved and utilized in re-vegetation areas. The soil in the upper portion of fill areas shall be of a sufficient quality to support native plant growth.

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11-8.3.4.6. The maximum limits of disturbance shall be identified on each lot or parcel of the approved site plans and subdivision plats and shall include all graded, excavated, and filled areas, the areas occupied by main and accessory structures, hard surface areas that include driveways, walkways, patios and parking areas, and all other areas of disturbance or non-native vegetation.

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11-8.3.4.7. All lots and building pads shall be graded during construction of the development, including all retaining walls, roadways, utilities, and all other improvements needed to complete the site work. No building permits for structures will be issued or recordation of any subdivision plats prior to completion of all site work unless specifically approved by the City Council.

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11-8.3.54. **Grading Design:** Grading for all developments shall be designed to blend with the contours of the adjacent natural terrain.

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11-8.3.54.1. Limits Of Grading: No grading, cutting, filling, excavating, benching or terracing of any proposed lot or parcel shall go beyond the maximum limits of disturbance for each lot or parcel as provided herein.

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11-8.3.54.2. Cuts And Fills: All cuts and fills shall be minimized and shall be included within the maximum limits of disturbance for each lot or parcel. All cut and fill areas shall be re-contoured to the natural, varied contours of the surrounding terrain with a maximum slope transition back to the natural grade no greater than two to one (2:1). Slope ratios greater than two to one (2:1) are prohibited except for approved cuts into solid rock only. Any such proposed cut into rock shall be reviewed for appropriateness, suitability, and visual impact in order to grant approval if warranted. For approved cuts into solid rock, the slope may be as steep as one-half to one ( $1/2:1$ ) if recommended by a Utah licensed professional engineer who is trained and experienced in the practice of geotechnical engineering, and if the visual impact of the cut can be adequately mitigated. All areas of cut and fill shall be protected from erosion during the period of construction and shall be permanently

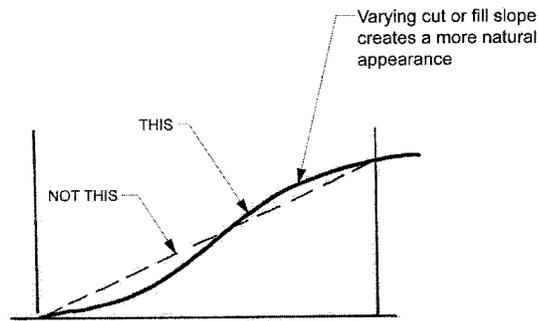
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planted or otherwise protected from erosion within twenty (20) days of the completion of grading and excavation as identified by the approved landscape plan.

Where cut or fill conditions are created, slopes shall be varied and rounded where feasible rather than left at a constant angle which may be unstable or create an unnatural, rigid, engineered appearance.



11-8.3.54.3. Cuts And Fills Visual Mitigation: The visual impact of cuts and fills shall be mitigated by methods approved by the city council. Mitigation shall predominantly be contour grading along with plantings as identified on the approved landscape plan that will stabilize the cut or fill slope and blend with the surrounding vegetation. Other mitigation may include, but is not limited to, the placement of buildings so as to screen the cuts and/or the placement of retaining walls designed to blend with the surrounding terrain to stabilize the cut and blend with the surrounding terrain. The use of retaining walls is to be as limited in scope and height as feasible to ensure the visual predominance of vegetation. Contour grading techniques shall be used to provide a natural appearing variety of slope transitions, slope percentage and slope direction in a three-dimensional undulating pattern similar to existing terrain.

11-8.3.54.3.1. Cut and fill operations shall be given a rounded appearance that closely resembles the natural contours of the land.

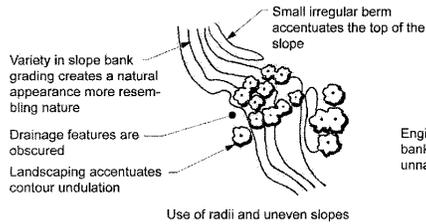
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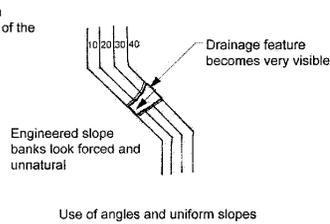
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Use of radii and uneven slopes

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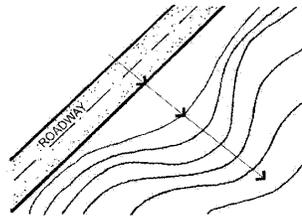
Use of angles and uniform slopes

11-8.3.54.3.1. Graded slopes adjacent to roadways shall be softened by sufficient berms, contour grading, and/or landscaping to create natural, varied and pleasing streetscapes.

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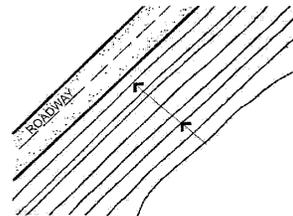
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Variety in undulating slope creates pleasing roadscape

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Straight slope bank heightens monotony of roadway landscape

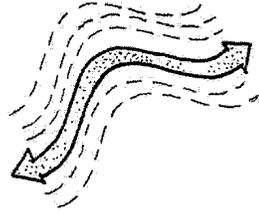
11-8.3.54.4. Street And Driveway Alignment:

Street alignments shall run generally parallel along the contours of the natural terrain. Short sections of streets that run perpendicular to natural contours and serve the purpose of connecting main parallel sections of streets are permitted and shall follow the natural curves of drainageways where practicable. Streets shall not greatly alter the physical and visual character of a hillside by creating large notches in ridgelines or by defining wide straight alignments. Contour grading techniques shall be employed on all streets and associated cut and fill areas to minimize any adverse impacts. Reduced width road sections, split road sections, and split parking bays are potentially acceptable techniques to employ in the layout of hillside streets to reduce grading.

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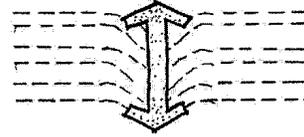
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Reduce grading by aligning roads along natural grades

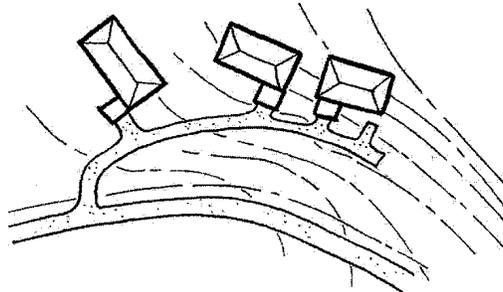
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Roads and hillside grading



Avoid running counter to steep grades except where necessary for connecting roads parallel to contours

The portions of driveways that run perpendicular to natural contours and serve the purpose of accessing building lots and parcels shall be as short as practicable. Driveways that serve more than one parcel are permitted as a method of reducing unnecessary grading, paving and site disturbance. If lots and parcels will be sharing driveways, cross use easements shall be recorded with the subdivision.



Shared driveways can reduce grading.

11-8.3.54.5. Open Space Trails: Trails through open space shall be located such that cuts and fills are minimized and visual character is preserved.

11-8.43.5.6. Building Site Grading: Building site grading shall be minimized so as to preserve natural features. Careful consideration shall be given to the general orientation of the slope when locating structures.

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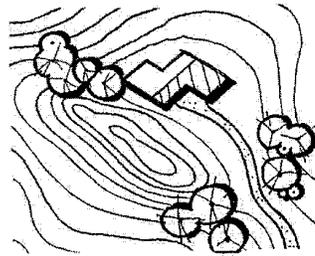
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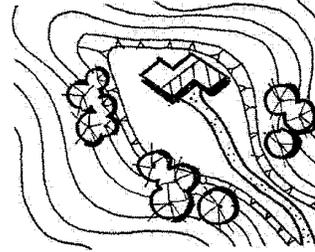
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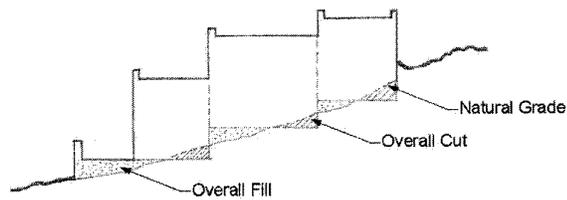
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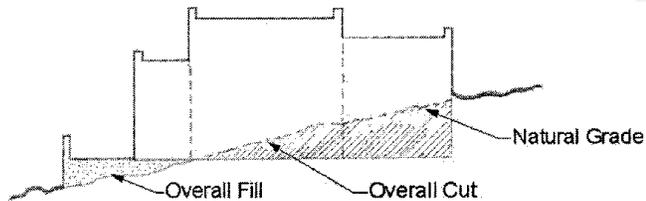
11-8.43.5.7. Cut And Fill Conditions: On each building site, careful consideration shall be given to the cut and fill conditions such that a balance is achieved where feasible and consistent with the intent of this chapter to minimize the visual impact of grading. Different terrain conditions call for corresponding different cut and fill solutions such that the structure fits well into the topography as illustrated below. Impact to natural drainageways shall be avoided.

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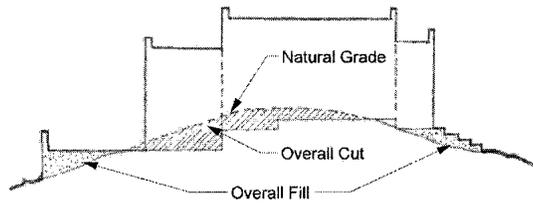
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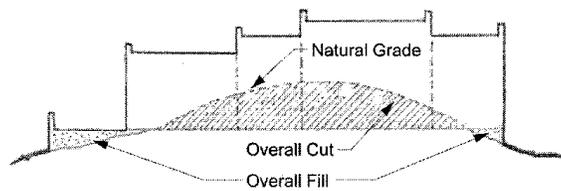
Sloping Site - Conceptual Terraced Floor Levels



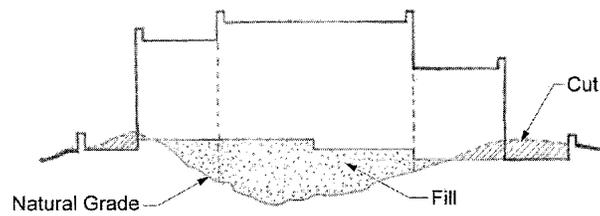
Sloping Site - Conceptual Single Floor Levels



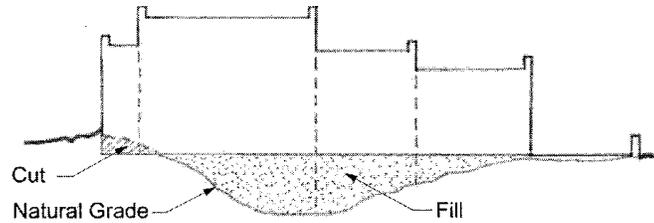
High Center Site - Conceptual Terraced Floor Levels



High Center Site - Conceptual Single Floor Level



Low Center Site - Conceptual Terraced Floor Levels



Low Center Site - Conceptual Single Floor Level

**11-8.45. Prominent Ridgeline And Mesa Edge Visual Preservation:** To minimize the adverse visual impacts that new development can have on prominent ridgelines and their associated viewsheds, the following setbacks shall apply:

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11-8.45.1. For new developments the minimum setback from a prominent ridgeline, as shown on the Sensitive Lands Overlay Map, ~~hillside protection overlay zone map~~, is fifty feet (50') for one-story structures and sight obscuring privacy fences and walls unless a greater setback is recommended in the geotechnical report.

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11-8.54.2. The setback is one hundred feet (100') for 1<sup>1/2</sup>- and two-story structures unless a greater setback is recommended in the geotechnical report.

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11-8.54.3. On individual lots previously platted, any setback; front, rear, or side may be modified by the City Council as determined in the best interest of the City unless a greater setback is recommended in the geotechnical report or a greater setback is recommended by the City Engineer or Development Committee for safety and stability.

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~~11-8.6. Architectural Standards: The purpose of establishing architectural design standards in sensitive lands areas is to ensure quality development that blends with the environment and to create neighborhoods that display harmonious and complementary architectural styles. To achieve sensitive lands compatible development, the City recognizes the importance of having architectural design that incorporates low profile rooflines and other building elements which reflect the~~

~~system shall be approved and inspected prior to the construction of any wall.~~

~~11-8.8.2.3.4. Where a retaining wall contains fill above the natural grade and is located within a required setback yard, the height of the retaining wall shall be considered as contributing to the permissible height of a fence or wall at that location. A nonview obscuring fence up to three and one-half feet (3.5') in height may be erected at the top of the retaining wall for safety.~~

~~11-8.8.2.4. Retaining walls not exceeding six feet (6') in height are permitted adjacent to structures in order to provide a private outdoor area.~~

**11-8.95. Wetland Areas:** Development in ~~high-water table and~~ wetland areas shall be subject to the following standards:

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11-8.95.1. Wetlands and natural drainages shall not be included as part of any buildable development unless allowed to be mitigated pursuant to applicable law. Lots within the RA (Residential Agriculture) or (Agricultural) zones, may include wetlands as part of the lot provided there is sufficient buildable area to accommodate the proposed use.

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11-8.95.2. Wetlands may not be included in area requirements for lots or for calculation of density.

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11-8.95.3. Where determined by the City Engineer, Development Committee, or Planning Commission, wetland areas may be required to be fenced if found to be detrimental to public health, safety or welfare.

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~~11-8.10. Surface or Subsurface Drainage: (Check this with the new Design Standards)~~

~~11-8.10.1. Surface or subsurface drainage from any development within the subject area shall be transported to either Kanab Creek or Jackson Reservoir and shall not be deposited, collected, or stored upon the property being developed or upon other properties within the subject area.~~

~~11-8.10.2. Drainage water from any proposed development will not be placed upon or pass through other properties, except:~~

~~11-8.10.2.1. Where a preexisting drainage system of adequate capacity is legally available for use; or~~

~~11-8.10.2.2. Where a permanent drainage easement of a size sufficient to carry projected flows has been obtained and a statement from the owners of both the host and guest properties recorded on proper deeds in the Office of the County Recorder specifying the following:~~

~~11-8.10.2.2.1. That the City will be held harmless from all damages or injury resulting from water pollution and flooding from drainage crossing said property.~~

~~11-8.10.2.2.2. That the property owner will allow the owner of the easement to enter onto said property to maintain the drainage facility on said easement.~~

~~11-8.10.2.2.3. That the drainage channel can be placed in a pipe or culvert at such time as deemed appropriate by the owner of the easement.~~

~~11-8.10.3. Drainage from the proposed new development will not be placed in an irrigation ditch or irrigation canal, originally constructed for irrigation purposes, except where permission, in written and recorded instruments (i.e., easements) running with the land, has been granted by the subject irrigation company and/or all water users below the proposed development on the specific ditch or canal specifying the following:~~

~~11-8.10.3.1. That the City will be held harmless from all damage or injury resulting from flooding, water pollution, or high ground water from drainage in the ditch or canal.~~

~~11-8.10.3.2. That the irrigation ditch or canal can be placed in a pipe or culvert at a time deemed necessary by the owner of the easement.~~

~~11-8.10.3.3. That the owner(s) of property which is the subject of a development plan may be required to provide, and record with the County Recorder, a statement holding the City harmless from all damage within the project resulting from flooding or high water table.~~

~~11-8.10.3.4. That a disclosure statement may be required to be placed upon all subdivision and development plats in the subject area, stating that the subdivision or development lots are in an area potentially subject to flooding from high water table.~~

~~11-8.10.3.5. That drainage easements be granted to the City within the proposed development, as determined by the City Engineer, and drainage facilities be installed as part of the development at developer's expense.~~

11-8.116. **High Water Table:** No building shall be allowed to be constructed in a high water table area of the City where the building proposed to be built includes a basement, (basement equals usable floor area below sidewalk level) except according to the following standards:

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11-8.116.1. Prior to the issuance of the building permit, the owner(s) shall produce a statement which has been recorded on proper deeds in the Office of the County Recorder stating that the City will be held harmless from all damages or injury resulting from flooding in a high water table area.

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11-8.116.2. Prior to the issuance of any building permit with a basement, the developer therefore shall submit to the Building Inspector a certificate from a registered professional engineer indicating the method or design to flood proof the basement except where prohibited by subdivision or development plat conditions.

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11-8.116.3. A comprehensive drainage and grading plan shall be submitted by the developer of any property within a high water table area and shall be approved by the City Engineer before preliminary development approval or approval for any residential, commercial or industrial development or building on a

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single lot or lots. In the case of subdivisions, such plan shall be submitted via the Building Inspector; or in the case of building development on a single lot or lots, the plan shall be submitted via the Building Inspector. Such plan shall be subject to the following requirements:

11-8.116.3.1. Pumps shall not be discharged into the street or into the sanitary sewer system; but shall require outfall into a storm drain or private ditch system, if permitted by the owners thereof. Approval of, and signatures by, all irrigation and canal companies if their ditches or canals cross the development areas, or if surface or subsurface drainage is to outfall into the ditch or canal or if modification to ditch or canal is proposed. Property owners should be aware that few ditch companies allow discharge into their systems.

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11-8.116.3.2 Quantities of runoff shall be determined for the complete development area by the rational or other standard engineering method of runoff. Procedures for the rational method of computation are outlined in Kanab Ordinances or Policy.

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11-8.116.3.3. At all outfall points from the development, quantities of runoff shall comply with City Ordinances.

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11-8.116.3.4. The capacity of any irrigation ditch, storm drain, or other channel shall be determined from the inlet point to the outfall point of said channel if it is to be used for runoff. If there is an insufficient capacity to handle added flows, it will not be used.

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11-8.116.3.5. A topographic map shall be prepared to indicate sufficient slopes in all areas to take surface drainage water into the designated street or storm drain. Water will not be allowed to pond any place other than a designated detention basin.

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11-8.116.3.6. A plan of all proposed curbs, gutters, and cross-gutters will need to be submitted. Such plan shall indicate on each curb

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the proposed grade, directions of flow, and quantities of flow.

11-8.116.3.7. No French drains or sumps shall be allowed in the developments as part of the drainage plans on public streets. Discharges from pumps shall not be allowed to pond on property nor shall sumps be used for the disposal of water.

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11-8.116.3.8. No building permit shall be issued in any development in the described area until the required subsurface and storm drainage system has been constructed and is in operable condition unless a hold harmless agreement is entered into by the developer.

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11-8.116.3.9. A soil test provided by a licensed soil engineer shall accompany the drainage and grading plan for all areas in which underground private and public utilities will be installed. The engineer's statement must indicate what remedial action is anticipated to be taken to stabilize utility lines to assure that they will not shift, buckle, or lose alignment.

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11-8.116.3.10. The said engineering plan shall include a cross-section of all proposed utility trenches showing configuration and type of materials to be used in backfill and as a "bed" for utility lines the same to be approved by the City Engineer.

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11-8.116.3.11. All water mains shall be poly wrapped in the high water table area.

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**11.8.7. Floodplain Areas: Developments proposed to occur within floodplain areas shall be subject to the Kanab Flood Damage Prevention Ordinance.**

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11-8.128. **Corrective Work:** Nothing in this section shall prohibit the city from authorizing grading deemed necessary to correct previously disturbed natural areas or existing hazardous conditions that are on site but not a part of the proposed development area that are brought to the city's attention, in which case the applicant will investigate possible alternatives with subsequent review by the Development Committee, City Engineer, Planning Commission and/or City Council.

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