CITY OF COLORADO SPRINGS

HILLSIDE DEVELOPMENT DESIGN MANUAL

PREPARED BY:

CITY PLANNING GROUP
DEVELOPMENT REVIEW UNIT

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HILLSIDE PROTECTION IS AN ISSUE WHERE AN OUNCE OF PROACTIVE PLANNING CAN PRODUCE BIG PUBLIC DIVIDENDS.

HOW TO USE THIS MANUAL

This manual applies to lands within the hillside areas of the City of Colorado Springs that are characterized by significant natural features that include ridgelines, bluffs, rock outcroppings, vegetation, natural drainageways, wildlife habitat, geologic conditions, and slopes that contribute to the attractiveness of the community. The City has identified these areas and placed them within the HS -Hillside Overlay Zone. The Official City Zoning Map designates the specific properties which are included within the Overlay Zone. The HS overlay may be used in conjunction with any zone district in the City.

The provisions of this manual shall apply to any and all of the following activities:

- Any lands in which new or enlarged building activity will occur;
- Any lands in which vegetation will be removed; and
- Any lands in which grading or any disturbance will occur.

This Manual is intended to be a valuable reference source, providing all of the instructions and information necessary to allow developers, contractors, homeowners and other interested persons to develop and maintain hillside properties in an environmentally sensitive fashion. This Manual incorporates code standards and requirements with recommended guidelines; it contains the Hillside Area Overlay Zone, as approved and found within the City's Zoning Code. (Refer to Appendix A.)

Generally, the following presents a quick guide for the user to understand the questions that should be answered to comply with the City's development process for the hillside areas:

HILLSIDE DEVELOPMENT OVERVIEW

1. What are the City's hillside design objectives?

2. What is the review process ?

3. What is required to be submitted?

4. How can a plan be developed?

5. How can City standards and guidelines be met?

The question's answers can easily be found in this Manual. This Manual is intended to be "user friendly" and comprehensive. If you have suggestions or comments, we would be interested in hearing from you; please contact the City Planning-Development-Review Unit, 101 West Costilla Street; Suite 212, Colorado Springs, Colorado 80903 or telephone (719) 385-5982.

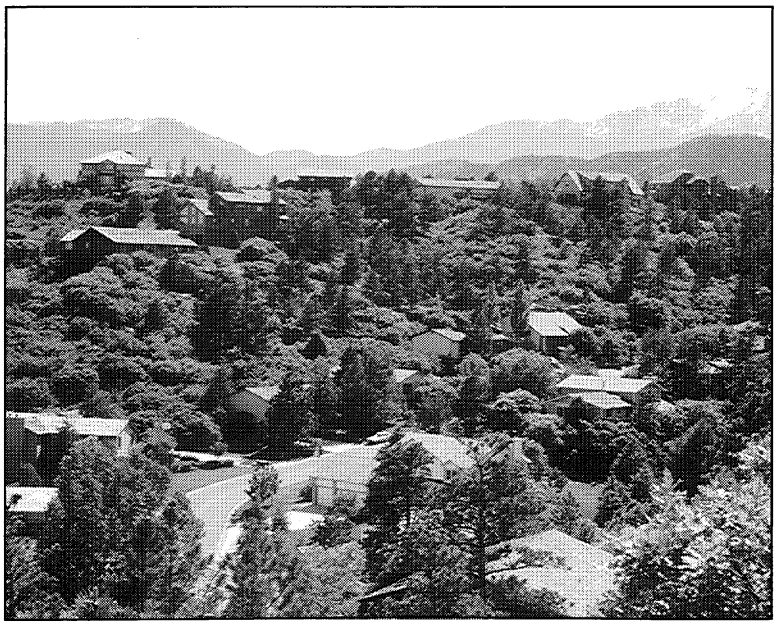
INTRODUCTION

The City has recognized that areas which are characterized by ridgelines, bluffs, view corridors, foothills, mountain backdrop, excessive slope, unique vegetation, natural drainage, rock outcroppings, geologic conditions, wildlife habitats, and other physical factors, are significant natural features worthy of preservation. Performance standards for hillside development have been developed and are incorporated into the Zoning Code as an overlay zone, referred to as the "Hillside Area Overlay". This manual is intended to serve as the design guidelines for the development of hillside areas

The Manual provides all of the instructions and information necessary to allow developers, contractors, homeowners and other interested persons to effectively, sensitively and conscientiously develop hillside properties. The Manual incorporates code requirements with recommended design standards and guidelines. The user of the Manual will hopefully find it useful in understanding the City's objectives for regulating hillside development.

The user will find particularly helpful information regarding hillside design issues that the City is most interested in promoting. Specifically, the Manual will show:

- How to minimize the disturbance to the terrain;
- How to preserve and incorporate nature features and vegetation into site design;
- How to mitigate and enhance visual impacts and opportunities;
- How vehicular access and utilities placement must be considered to minimize destruction to hillside characteristics;
- How to use supplement landscaping to enhance hillside property;
- How to use architectural features to conform to hillside characteristics; and
- How to enhance streetscape appearance.



Hillside development on privately owned property is inevitable; how the hillside will be developed is a matter of communitywide concern. If development occurs in accordance with this Manual, it will be done in a manner sensitive to the natural functions of the land and preserve and protect one of the City of Colorado Springs most significant attributes -- its mountain gateway into the Rockies.

INTENT / PURPOSE

The purpose of the Manual is to provide all of the instructions and information necessary to allow developers, contractors, homeowners and other interested persons to effectively and conscientiously develop hillside properties. The Manual incorporates code requirements with recommended guidelines. The user of the Manual will hopefully find it useful to understand the City's objectives for regulating hillside development.

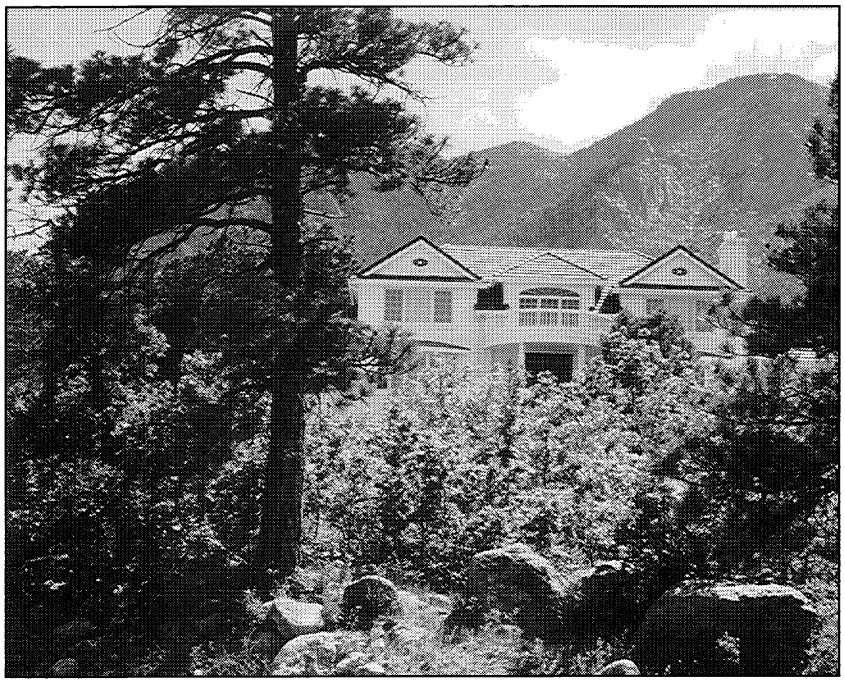
The City of Colorado Springs desires to have development that occurs within the hillside areas adhere to specified review procedures, performance standards, and design guidelines which implement the following design objectives:

1.) To enhance the quality of life of existing and future residents by the preservation and protection of the City's most significant natural feature.

2.) To contribute to the natural hillside character of the existing neighborhoods and developments in the area by limiting the alteration to topography and natural drainageways.

3.) To preserve and protect the unique and special natural features and aesthetic qualities of the hillside areas.

4.) To ensure that new development is sensitive to the existing natural setting and that the protection design minimizes the removal of significant vegetation and natural features to the greatest extent possible.



5.) To preserve and protect wildlife habitat.

6.) To integrate natural features into project design.

7.) To respect the existing views to the mountains and foothills, and privacy of the adjacent homes.

8.) To avoid geologic conditions which may pose a threat to property and life.

9.) To encourage the use of innovative design techniques and solutions which minimize disturbance and protect sensitive areas.

10.) To recognize community concerns related to development and its impact upon visually significant hillsides, ridgelines, bluffs, and landforms.

CITY COMPREHENSIVE PLAN CONFORMITY

This Manual endeavors to implement numerous goals, objectives, policies, and recommendations of the City of Colorado Springs Comprehensive Plan, including, but not limited to the following:

◊ *Goal 5.1*:
- *Policy 5.1.4*:
  - *Recommendation 5.1.R4*: (F) & (L)

◊ *Goal 9.2*:
- *Policy 9.2.1*:
  - *Recommendation 9.2.R2*:

◊ *Goal 9.4*:
- *Policy 9.4.3:*

◊ *Goal 9.5*:
- *Policy 9.5.3*:
  - *Recommendation 9.5.R.1*:

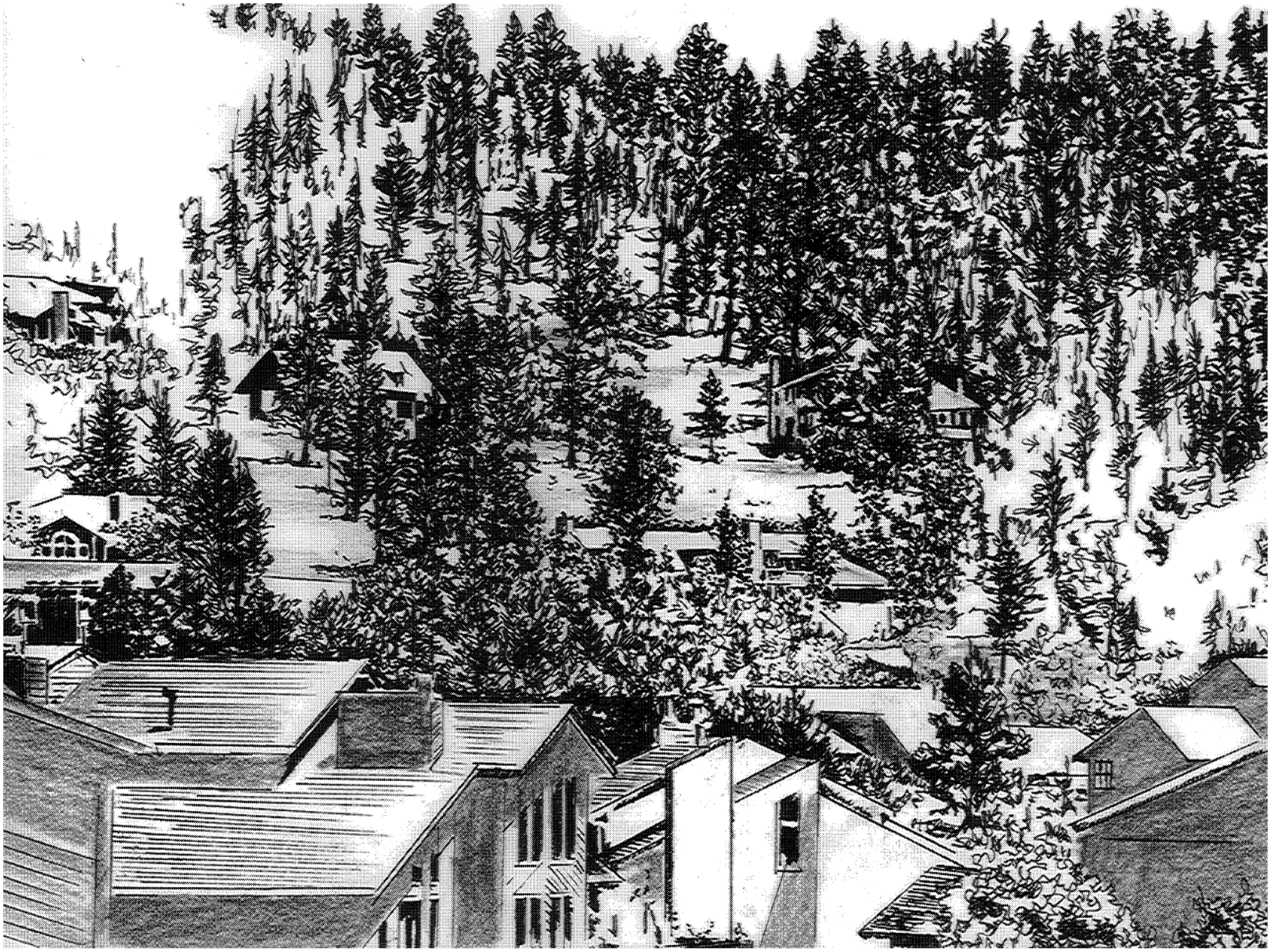
◊ *Goal 16.1*:
- *Policy 16.1.1:*
  - *Recommendation 16.1.R2*:
  - *Recommendation 16.1.R6*:

◊ *Goal 16.4*:
- *Policy 16.4.1*:
- *Policy 16.4.2:*

Please refer Appendix K for the specific language on each of the noted Goals, Objectives, and Recommendations of the Comprehensive Plan.

Ian L. McHarg, teacher, landscape architect and planner, writes in his book, Design with Nature,

"When developments are built upon beautiful, dramatic or rich sites; their excellence often results from the preservation and enhancement of the natural features, rather than the obliteration of them."



HILLSIDE DEVELOPMENT PLAN (HS/DP) REVIEW PROCESS

Prior to obtaining a building permit for a HS zoned lot, both a subdivision plat and HS development plan must be approved by the City. The development plan is the document which establishes the project design parameters while the subdivision plat formalizes the lot layout pattern, and street and drainage designs.

Applications for development plans are processed by the City's Development Services & Comprehensive Planning Division . Additional information regarding the HS development plan requirements , review procedures and appeal process is set forth in Appendix A. HS Site/Grading Plans submitted in conjunction with the building permit review process must act to implement the design parameters established with the approved development plan.

HILLSIDE SITE / LOT GRADING PLAN (HSS/LGP) REVIEW PROCESS

OVERVIEW.

This section provides persons who are contemplating constructing a new house or building an addition onto an existing home, the information necessary to allow them to be able to successfully submit and receive City approval of Hillside Site / Lot Grading Plans (HSS/LGP). The section includes:

- Design review criteria
- Required plan contents and information
- Review process procedures
- Post construction follow-up procedure

CRITERIA

By ordinance, construction activity, including grading or removal of vegetation, shall occur on lots or parcels subject to the Hillside Overlay Zone until a Hillside Site Plan/Lot Grading Plan has been approved by the Development Services Division. Hillside Site Plan/Lot Grading Plans will be evaluated for consistency with the underlying zoning district development standards, approved development plan standards, and in accordance with the following site design hillside overlay zone review criteria:

◊ Have the development standards of the zone or Development Plan (i.e., setbacks, maximum height, lot coverage, drive grades, access points etc.) been met?

◊ Is terrain disturbance minimized?

- Have cuts and fills been minimized?
- Has the natural land form been retained?
- Have visually compatible stabilization measures been used for cut & fill slopes?
- Have natural features such as slopes & rock formations been incorporated into the site design?

◊ Is natural vegetation preserved and incorporated into the project design?

- Has emphasis been placed upon preserving Scrub Oak and pines within the front yard area as this has a major impact upon the appearance of the streetscape and the character of the neighborhood?
- Has emphasis been placed upon preserving healthy and significant stands of Scrub Oak and pine trees?

◊ Have visual impacts upon off-site areas been avoided or reasonably mitigated?

- Has the structure been sited so that there is a mountain or hillside backdrop?
- Has the structure been sited off from the ridgeline?
- Has existing vegetation been preserved to soften the structural mass of buildings located in highly visible areas?
- Has supplementary native landscaping been used to soften structural mass of highly visible building sites?

APPLICATION CONTENTS AND REQUIRED INFORMATION

Hillside Site / Lot Grading Plan Applications consist of the following two components:

◊ A Hillside Site / Lot Grading Plan

◊ A Hillside Building Elevation Drawing

HILLSIDE SITE / LOT GRADING PLAN. A Hillside Site / Lot Grading Plan is required for all persons desiring to construct, modify, grade, remove vegetation, and/or disturb properties located within the Hillside areas. Appendix C set forth all the information required to be illustrated on a Hillside Site / Lot Grading Plan.

HILLSIDE BUILDING ELEVATION DRAWING. A Hillside Building Elevation Drawing is required for all persons desiring to construct and modify structures located within the Hillside areas. A checklist for a Hillside Building Elevation Drawing with all required information is included as part of the Hillside Site / Lot Grading Plan Submittal Checklist. (See Appendix C.)

REVIEW PROCESS PROCEDURES

◊ **Preapplication Conference:** (Optional) Prior to planning and designing a project, the applicant should review the Hillside Development Design Manual and the Hillside Overlay Zone District section of the City Zoning Code, which establish the requirements and guidelines for acceptable hillside development. It is strongly suggested that the applicant contact and/or make an appointment with the City Planning staff to discuss the project. At that time the nature of the project should be described. Site visits may be appropriate during this stage. The City staff will clarify review procedures, design guidelines, and submittal requirements. Critical specific issues applicable to the project can be identified and preliminary consensus reached.

◊ **Preliminary Design Review:** (Optional - Preliminary review is an informal process enabling the applicant to receive written input from City staff on the basic concept of the development proposal.) This step is optional but is recommended for projects requiring extensive grading, or the removal or alteration of significant vegetation and natural features. Preliminary review allows the applicant to meet with the City staff to discuss basic intentions and plans prior to undertaking detailed design. At this step, site analysis and design, location of structures, grading, basic form of buildings, vegetation and significant feature protection and removal are important. Building elevations and other information may be discussed but kept in a preliminary form. Sites visits may again be appropriate during this stage.

Formal Hillside Site / Lot Grade Plan Application: (Required) A complete Hillside Site / Lot Grading Plan with a Hillside Site / Lot Grading Plan Submittal Checklist must be filed with the Development Review Unit of City Planning. A Hillside Site / Lot Grading Plan is required for all persons desiring to construct, modify, grade, remove vegetation, and/or disturb properties located within the Hillside areas. A Hillside Building Elevation Drawing is required for all persons desiring to construct and modify structures located within the Hillside areas. Plans and Drawings may accompany and be included with architectural drawings submitted to the Regional Building Department in pursuit of a building permit. See Appendix C. for a copy of the HSS/LGP Checklist and content requirements.

Staff Review and Evaluation: (Required) Upon receipt of a Hillside Site / Lot Grading Plan and Submittal Checklist, City Planning Staff will review the plan for compliance with content requirements, design guidelines, and hillside standards. During their review City Planning staff will visit the site, and review the plan for compliance with following evaluation standards:

- Underlying Zoning District Standards.
  - minimum lot area
  - minimum front, side, and rear yard setbacks
  - maximum lot coverage

- Development Plan Standards.
  - building lots and envelopes
  - vehicular access
  - location of utility lines
  - retention of significant vegetation
  - specified hillside building height
  - location of preservation areas
  - geologic hazard avoidance and mitigation

- Hillside Overlay Zone Standards and Design Standards
  - minimize terrain disturbance
  - preservation and incorporation of natural vegetation
  - mitigation of off-site visual impacts
  - maximum building height
  - access and utilities
  - architectural features
  - construction practices
  - revegetation
  - wildlife habitat preservation
  - streetscape appearance

◊ **Final Hillside Site / Lot Grading Plan Decision.** (Required) Upon completion of their review City staff shall do one of the following: approve the plan, as submitted; approve the plan, subject to conditions; or deny the plan. All approved plans will be stamped and dated. Any conditions of approval will be clearly noted.

◊ **Hillside Site / Lot Grading Plan Amendments, Revisions & Modifications** (Optional) An amendment, revision, and modification to a plan is considered a new application and must proceed according to the procedures as if it were a new application. Amendments should be

clearly identified upon the plan either by highlighting, outlining the amended area, or providing text describing it.

◊ **Appeals** (Optional) Any administrative action or decision of City Staff under the provision of the Hillside Overlay Zone District or this Manual may be appealed to the City Hearing Officer in accordance with City Code Section 14.1-4-204.B.5.b.

CONSTRUCTION FOLLOW-UP

◊ **Inspections.** The Development Review Unit of City Planning Office will follow-up and conduct inspections to determine compliance with the approved Plans and the provisions of the Hillside Overlay Zone District and other City Code provisions. Most sites will be visited twice after construction commences.

The initial inspection will be scheduled to occur shortly after the site has been cleared, foundation constructed, and while the framing is in process. The propose of the initial inspection will be to determine compliance and to prescribe mitigation or remedial actions which can be taken, at an early stage, to correct necessary violations. A fuels management inspection will occur at the same time. Required corrective actions will be forwarded to the applicant and full compliance is expected by final inspection.

The final inspection will be scheduled to occur shortly after construction has been completed. The propose of the final inspection will be to evaluate the overall site and building design in relation to its impact upon the site, the streetscape, and surrounding area. Determination of compliance and the prescription of additional mitigation actions may be necessary. A final fuels management inspection will also occur at this time.

◊ **Evaluation Letter.** The Development Review Unit of City Planning Office will provide an evaluation letter to all applicants of hillside development. The letter will address plan and code provision compliance, provide the City staff's evaluation regarding the site and building's design, and City staff's opinions regarding its impact upon the hillside and surrounding area. A sample evaluation letter can be found in Appendix G.

◊ **Enforcement.** The Development Review Unit of City Planning is authorized to pursue enforcement actions including, but not limited to, the issuance of a Notice and Order for violations of the approved Hillside Site / Lot Grading Plan and/or the provisions of the Hillside Overlay Zone District, in accordance with the procedures set forth in Section 14.1-4-1101 through 14.1-4-1110 of the City Code.

HILLSIDE SITE / LOT GRADING PLAN DESIGN PRIMER

OVERVIEW

The purpose of this section is to provide the user with a "how to guide" to the development of a Hillside Site / Lot Grading Plan (HSS/LGP) which will meet the City's standards and design guidelines. The section is not intended to prescribe the only method in which a HSS/LGP plan can be developed, but outlines the important steps and issues which should be considered.

HOW TO PREPARE A HILLSIDE SITE / LOT GRADING PLAN .....

INVENTORY SITE FEATURES

ANALYZE SITE ISSUES

EVALUATE CONCEPT ALTERNATIVES

CHOOSE FINAL DESIGN

MEET CITY OBJECTIVES

SITE INVENTORY

Inventory the natural and physical conditions of the site. Determine the suitability of the site for the project. It is not necessary to study each of the conditions in detail. Rather, the applicant should understand which conditions the project's success depends upon. A Site Inventory Feature Checklist is included in Appendix E. for your use and information.

◊ Natural Features

Does existing natural features provide opportunities or constraints to development? The existing natural features should be inventoried, in narrative and perhaps map formats. A complete overview of the natural features which may be impacted by the development should be reviewed. The natural feature's functions, possible hazards, unique significance, and their specific characteristics should be understood and respected.

◊ Identification Of Geologic Hazards

An important aspect of selecting the right lot for a home, or selecting the appropriate location to site a structure, is the knowledge of the possible existence of geologic hazards.

STEPS TO BUILDING SUCCESSFULLY IN GEOLOGICAL HAZARDOUS AREAS

- **Review the Geologic Hazard Study commissioned by the developer. This should be done prior to the purchase of the lot if possible but certainly prior to determining where the structure will be located and how the lot will be graded.**
- **Have a soils test performed; site the structure in the area with the best soil and the least amount of geologic hazards.**
- **Have a foundation engineered which is designed to withstand the soil and geologic conditions existing on the site.**
- **Make sure the foundation is constructed in accordance with the requirements of the soils report and the engineered design.**
- **Insure that the foundation is well drained and that there is positive drainage away from the foundation.**
- **Incorporate low-water/xeri-scape plant materials into the landscaped design: especially near your foundation.**

Colorado Springs contains a variety of geologic hazards, including , but not limited to, the following:

- Expansive soils and rock
- Unstable or potentially unstable slopes
- Landslide or potential landslide areas
- Debris Flows
- Rockfall
- Subsidence
- Shallow Water Tables
- Springs
- Flood prone areas
- Collapsing soils
- Faults

Knowledge of whether any of these geologic hazards are present on a property is an important factor in determining: how, where and even if a project will be built. Most developers commission Geologic Hazard Studies prior to designing their subdivisions and selling lots. It is suggested that these studies be reviewed prior to the purchase of the lot or at the very least, prior to the selection of the building location and design of the Site/Grading Plan. If no Geologic Hazard Study exists for the development under consideration, a geotechnical engineering firm should be hired to perform a site reconnaissance and geologic hazard review.

A soils test will be required to be performed prior to the issuance of a building permit. The foundation must be designed, by a registered civil engineer, to withstand the geologic forces anticipated to be exerted by the specific soil condition. In order to be sure that the structure is being placed in a location which has an acceptable level of geologic hazard risk, and the best soil conditions, it is recommended that a soils test be performed prior to the final design of the HS Site/Grading Plan This approach will not only provide the comfort of knowing the structure has been built in the safest location on the lot (in terms of exposure to geologic hazards) it will also save money. Many geologic constraints can be overcome through special foundation designs or engineering techniques, but these can significantly increase the cost of your structures.

If a driveway needs to be graded vegetation removed in order to get a soils rig onto a lot, please contact the Zoning Office (578-6919) and we will review and pre-approve the preliminary grading and vegetation removal prior to submittal of a final Site/Grading Plan. However, under no circumstances should driveways be rough graded or Scrub Oak or pine trees be removed from the your lot prior to coordination with the Zoning Office even for the purpose of providing access for soils testing equipment.

◊ **Facilities and Services**

Are adequate facilities and services available to serve the site and development? Consider where the utility service lines will be connected into the public system and how these lines will be brought to the new homesite, in terms of the grading required and the impact upon the existing vegetation. Whenever possible, driveways and utility services lines should share the same cut. Assess the impact that wastewater service lines may have for downsloping lots where sewage must either be pumped up hill or through downhill adjoining lots.

◊ **Access**

How will vehicles access the site? Driveways must meet City and fire protection design standards for size, location, surface, grade, and access points. Can access be provided to the house site with minimal impacts to other site features? In general, the driveway should follow the natural grade of the lot to the extent possible. The City encourages access to utilities and to the street be included in the same general vicinity. Two cuts, one for driveways and the other for utilities, through hillside vegetation and topography is not an acceptable practice.

◊ **Land Use**

Is the proposed development compatible and consistent with the character of the area and neighborhood? For the most part, land use for a parcel in the Hillside zone is determined during the zoning classification and development plan review processes.

SITE EVALUATION AND ANALYSIS

Once the development program and site features have been inventoried the feasibility of developing and constructing on a specific lot or site can be analyzed and evaluated. As addressed previously, many natural and physical conditions could affect the success of the project. While all the factors have been inventoried, only a few will present constraints and opportunities to be mitigated or enhanced.

> ***"The process of inventory and analysis will suggest whether or not the site is suitable for the intended project, which area hold up best and which areas are most vulnerable..."***
>
> ***Fawn Hayes Bell***
> ***"Landscape and Site Improvements Design Guidelines"***
> ***Prepared for:***
> ***The Water Resources Department***
> ***City of Colorado Springs***

First, determine whether a site feature is a constraint, an opportunity, both, or is of no consequence to the project. Next, evaluate the constraint to determine whether it can be mitigated or the opportunity enhanced. Does the mitigation or enhancement of one feature cause additional problems or added value to other features? Does the action render the project still feasible or present overwhelming economic ramifications?

◊ Constraints

Features that are constraints are those which restrict or limit the development potential of the property. Constraints should be analyzed to determine whether they can be minimized, mitigated, or altered to a degree which would allow development to occur. If the constraint can not be overcome or would be too costly to mitigate, then the project is not feasible and additional resources of time, energy, and money should not be consumed. If the constraint can be overcome or mitigated without too great of expense, then the project planning should continue. For example, if the potential site has shallow underlying depth to groundwater or free flowing springs, which could not be controlled without extensive collection systems and/or great costs, then the project is probably not feasible.

◊ Mitigations

Constraints that can be overcome by making them less serve or intense are said to be mitigated. Mitigative actions may include eliminating the constraint, utilizing design alternatives or engineered solutions which neutralize the constraint. Mitigation actions need to be evaluated to determine whether a positive cost benefit relation exists.

◊ Opportunities

Opportunities are site features which provide favorable circumstances not enjoyed by other sites. Opportunities should be analyzed to determined whether they can be enhanced and used to benefit the project. Projects which utilize opportunities will certainly meet City Hillside objectives and add value to the property. For an example, the placement of a structure to preserve a

stand of mature trees will enhance the natural setting of the site and maintain its hillside character. Maximizing solar gain by orientating a structure to face south is an opportunity.

◊ Enhancements

By incorporating natural features and adding supplemental native landscaping into a site design, the site can be enhanced. For example, the use of natural materials and earth tone colors on hillside structures is considered an enhancement.

CONCEPTUAL ALTERNATIVES

It is essential to evaluate and study several alternative site layout concepts. Alternative layouts can be generated inexpensively and need not be carefully drawn or detailed in the initial preliminary design process. It is enough, at first, to draft only the essentials of a scheme in a simple form. If one scheme lends itself to comparison to another, it can be developed yet as another scheme and so on and so forth. Alternatives should always be reviewed prior to committing to a final plan. If a preconceived design exists, the evaluation can be used to test, verify, or modify the concepts. In general, initial concepts seldom work the best, but rather the third or forth scenario combines the best of each and will eliminates the problems.

STRATEGIES FOR DEVELOPING ALTERNATIVE PLANS

DO NOT ASSUME THERE IS ONLY ONE WAY TO MAKE A PROJECT WORK
DO NOT BE SATISFIED WITH THE FIRST ATTEMPT
QUESTION EVERY ACTION AND REACTION
A LOT OF IDEAS CREATE BETTER SOLUTIONS
LOOK FOR THE SECOND RIGHT ANSWER
ASK "WHAT IF" QUESTIONS
CHALLENGE THE RULES

◊ Evaluate

As previously discussed, every site has both opportunities and constraints; it is now helpful to map and illustrate them. Once the previous inventory information has been collected and the alternative design schemes drafted, this information must be organized to permit an easy evaluation of the best development solution. The evaluation should answer the questions, objectives, and requirements addressed in the already written development program.

The preferred development concept will emerge and synthesis reached as the developer weighs and evaluates the alternative concepts and answers the following questions:

Which plan best satisfies the development program's objective and requirements?

Which plan best fits the site?

Which plan best satisfies the City requirements and guidelines?

Which plan can be implemented with what degree of effort?

Which plan provides reasonable cost benefits?

◊ **Synthesis**

The result of the evaluation produces a summary site analysis which illustrates the interrelationships of a site's spatial, natural and physical conditions with the objectives and requirements of the development program. The analysis should identify the portion of the parcel most suited to development as well as areas to be left undisturbed. Areas in need of more detailed evaluation also should be identified.

◊ **Selection**

At this point the right scheme for development for the site should be obviously clear. Now a preliminary HSS/LGP plan can be prepared. This plan incorporates all of the factors previously discussed with the additional information required by the City and other agencies. The plan represents the final draft prior to the preparing of the final plan. Often, it will include architectural renderings and profiles.

The homebuilder will now have a reasonably precise understanding of the project. Once a confidence level has been reached that the preliminary plan will fulfill the development objective for the site, then the detailed final plan with engineering studies and construction drawings can be prepared.

HINTS FOR HILLSIDE SITE / LOT GRADING PLAN SUCCESSFUL APPROVALS.....

1. If you have a difficult site, call the Development Review Unit of City Planning for a pre application conference and site visit. Working out tough solutions together is a good policy.

2. Submit a complete application. A complete application includes:

   - ❒ A HSS / LGP plan with all of the required information.
   - ❒ A Hillside Building Elevation Drawing.
   - ❒ A HSS / LGP plan Submittal Checklist, signed and certified.

3. Always meet or exceed City requirements or guidelines.

4. Use this Manual, it is intended to make your job easier.

5. When in doubt ask the question or request an explanation.

6. And finally, ***DESIGN*** your project to maintain the Hillside character of the site by:

- Minimize the disturbance to the terrain, avoiding no cuts or fills unless they are necessary.
- Preserve and incorporate nature features and vegetation, save significant mature trees, rock formations, and stands of vegetation, particularly in the front yard.
- Mitigate visual impacts, by keeping structures below ridgelines, stepping structures with the slope, and minimizing the height of structures.
- Place utilities and driveways in the same cut.
- Add supplemental natural landscaping to compensate for vegetation losses.
- ***Design the building to fit the site, rather then modifying the site to fit the building.***
- Use architectural features to conform to hillside characteristics, use natural materials, earth tone colors, and broken roof and wall components.
- Enhance the streetscape appearance by saving front yard vegetation, staggering setbacks, and use minimal sized driveways that take up grade.
- Avoid slopes of 25% or greater.
- Identify and mitigate geologic and other hazards.
- Use retaining walls as only the last resort, they should not be built to create flat lawns.
- Take care during construction to minimize the destruction of natural features.
- Control excess drainage, soil erosion and sedimentation during and after construction.

INSTRUCTIONS: HOW TO CALCULATE HILLSIDE HEIGHT FOR SINGLE FAMILY HOMES

The following is a step by step procedure for calculating the height of structures in the Hillside Area Overlay Zone, based upon the proposed method and standard:

1. **On the site plan, building grade and finished grade contours shall be shown.**

   Accuracy of the contour information is essential. The plan scale should be a minimum of 1 inch is equal to 20 feet and the contour interval not less than two feet. It is encouraged that the site plan be drawn to meet "National Map Accuracy Standards." The City's FIMS mapping system information may be a reliable source of building grade contour information. If this site has been disturbed through the construction of streets or utility installation, the disturbed contours will need to be resurveyed.

2. **On the site plan locate and determine both a site permanent benchmark and a proposed structure's benchmark with elevations identified and recorded.**

   The structure's benchmark should also be shown the building elevation drawing. Two benchmarks shall be identified at the actual site for verification by zoning personnel. Site benchmarks should be a permanent monument such as a chiseled curb spot, top of fire hydrant or other fixed fixture. A structure's benchmark should be located to be above the proposed finished grade and easily identified such as top of slab on the garage floor, chiseled foundation spot, or other visible point.

3. **On the site plan locate and determine the major corners of the proposed structure.**

   Major corners are the points where the structure's walls change directions for distance of eight (8) feet or more, including attached garages and additions, but not including decks, patios, bay windows, chimneys, or similar projections.

4. **On the site plan at the major corners record the elevation where the structure intersects the building grade.**

   Remember "building grade" is simply the topography and elevation of the lot immediately prior to your proposed construction. It may have been previously graded in accordance with a City approved grading plan or may still be in its natural condition.

5. **On the building elevation drawing, draw front, rear, right, and left side profiles of the structure. The preferred drawing scale should be 1/4 inch is equal to one foot.**

   Building elevation drawings are required as part of the building permit plan application. Your architect will provide these.

6. **On the building elevation drawing, indicate the building grade at each of the major corners and connect with a line.**

   From the site plan transfer mark and illustrate the building line where the structure intersects the building grade surface on the building elevation drawings.

7. **On the building elevation drawing, from the major corners, measure vertically to the maximum height specified on the approved Development Plan, or to 35' for a sloped roof or 30' for a flat roof, which ever is less. Connect these points for each side profile with a straight line.**

   The horizontal lines represents the maximum hillside building height.

8. **On the building elevation drawing, if all portions of the roof fall below the horizontal lines, the structure is in compliance with the height standard. If any portion of the roof exceeds the horizontal lines, the structure is not in compliance.**

IF YOU HAVE ANY QUESTIONS REGARDING THE HEIGHT CALCULATION METHODOLOGY, CALL CITY PLANNING AT 385-5982.

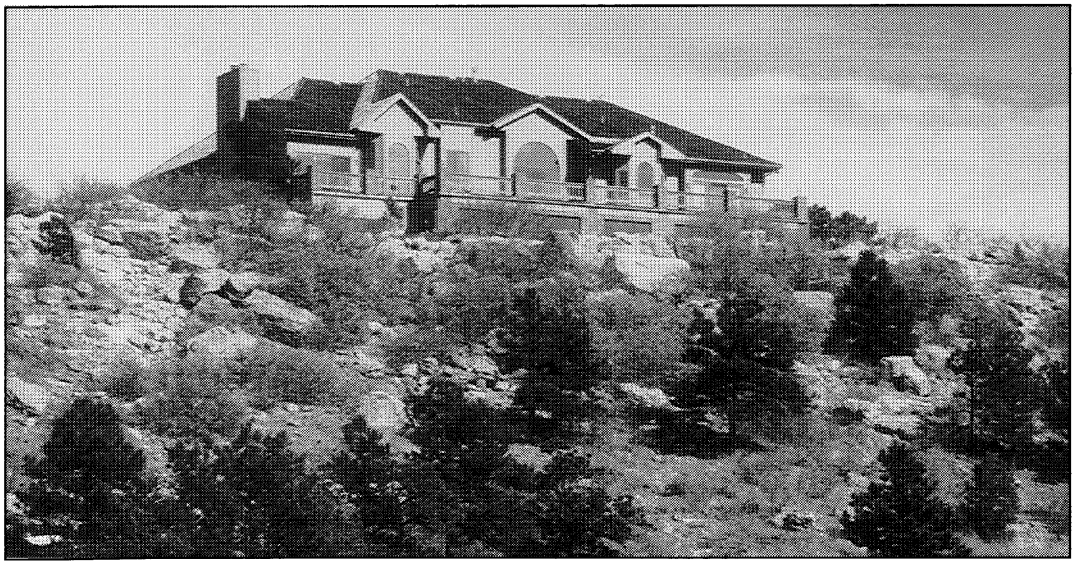
HILLSIDE DESIGN GUIDELINES

OVERVIEW: LIVING AND BUILDING HOMES IN THE HILLSIDES

So you decided to build a home in the City's hillside areas. You probably made this decision based on a lot of factors. The hills are where you can actually feel like you have moved to the Colorado mountains. There are trees and nature and views that can mellow even the most stressful of workdays. This is where the City meets the forest.

There is a cost to hillside living, however. Beyond the price of the real estate homeowners must contend with a delicate ecosystem, slippery steep hills in the winter, wind conditions and wildlife. Because the foothills are such a special area, there are a set of rules that apply to everyone who chooses to live there. Whether building a new home or you are in a house that has been around for 20 years, there are strictly enforced guidelines that regulate how you may treat your lot. These requirements are covered in the following pages.

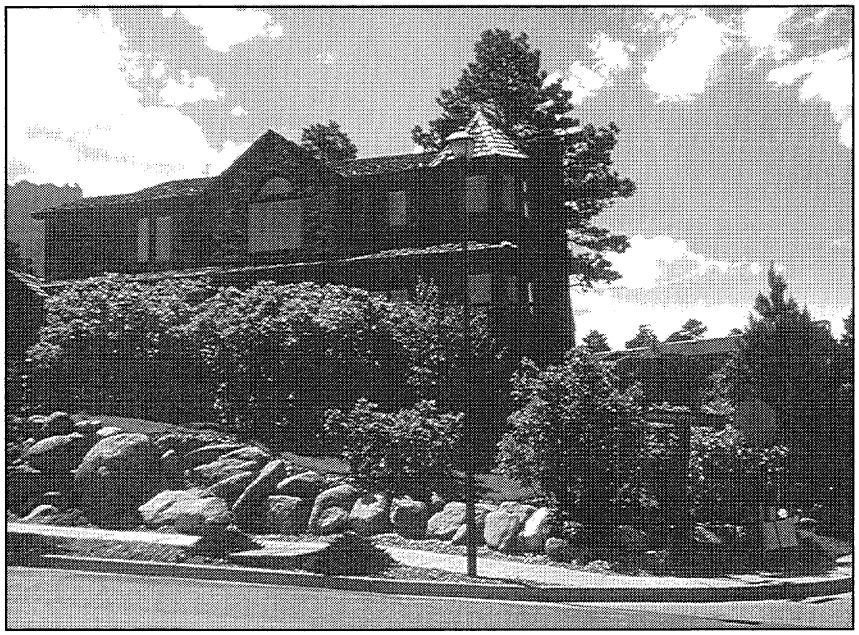
BEFORE YOU BUILD... The question of how to build in the hillsides should be addressed by starting miles from your proposed home site. Looking toward the mountains it is easy to see how the ecotones change as you head up the sides of the foothills. Prairie gives way to Scrub Oak and this in turn is replaced by Ponderosas, Cedars and other trees. It is not a smooth ascendance, rather hills top out in ridgelines and small peaks reach toward higher ones. Around here, all is ultimately capped by the grandeur of our most famous landmark, Pikes Peak. There is, however, an important factor to keep in mind, when placing a dwelling to maximize these views. When a house is sited for a breathtaking view, perhaps high on a hilltop or ridgeline, the folks down below have a breathtaking view of your house. With such prime real estate comes some important responsibilities.



Homes in prominent locations must be sited and designed with the following in mind:

- Homes need to be setback a far enough distance from cliffs or hilltops so that the structure does not appear to be perched on the edge.

- A mountain or other landform should act as the backdrop to the home. This is highly preferable to having the building project into a blue sky background like the parapet along the top of a castle. If the house does break the plane of the natural backdrop, it should be designed to mimic the natural lines of the hillsides.



- Existing and new vegetation should be placed to soften the mass of the home from off site. An effective vegetative cover will veil most of the lower level of the house.

- Dark or earthtone colors should be used to make the home less conspicuous as seen from off site. White and other light colors should be avoided.

- Outside lighting should be muted and directed so that it does not spill over on to neighboring properties.

- Dwellings should be placed far enough apart to reveal views of the Front Range and other significant ridgelines from the street and from the houses downhill.

- Dwellings sited to maximize views at the expense of vegetation will be denied.

As you approach the site, the potential house location should be viewed from a number of perspectives. Before placing a house on a lot there are many questions to be asked. Are the soil types suitable for drainage and have you addressed any geotechnical hazards? Is the slope

appropriate for the style of the house and will it allow you to take advantage of the solar orientation while minimizing the impacts of the wind. Is the house set high enough to drain into the sewer system, yet low enough to allow you to make it up the driveway on a wintry day? Although these are all very important considerations, many are secondary to the need to save the natural features of the site and incorporate them into the site design.

The right to live in the City's hillside areas goes hand in hand with the responsibility to build in a environmentally sensitive manner. If the street you have chosen had a woodsy feel when you selected the site, it is your obligation to see that this feel still exists when you are finished. The house will need to appear as if it was designed for the site when viewed from all sides, but particularly so from the street. This goal can be accomplished by incorporating the following:

- The driveway should not be the predominant feature of the front yard. Paved and structural areas must be softened by preserving the pre-existing vegetation.
- Setbacks should be staggered to avoid a canyon effect.
- Shared driveways are encouraged, when appropriate.
- Cuts and fills are to be minimized and vegetation is to be preserved.

BUILDING MULTI-FAMILY, OFFICE, INDUSTRIAL AND COMMERCIAL PROJECTS IN THE HILLSIDES

Single-Family homes are not the only projects built in the Hillsides. Multi-family, commercial, office and industrial projects can also be appropriate if care is taken in the design of these projects to insure that important hillside characteristics are maintained.

The following is a list of design standards and guidelines which should be addressed in siting multi-family, commercial, office or industrial projects within Hillside Areas:

- Multi-family buildings should be designed in such a manner to provide the greatest degree of privacy possible for the individual structures as well as to adjacent properties.
- Buildings placed upon downslope lots should be sufficiently screened by vegetation to avoid degrading views from off-site.
- Existing vegetation, especially mature trees and groves of Scrub Oak should be integrated into the project design.
- For building sites in proximity to ridgelines, additional height restrictions may be necessary to insure that rooflines will be located below the natural ridgeline.
- Large expanses of flat areas for parking that require cuts, fills or the removal of existing significant vegetation or natural landforms should be avoided.
- Buildings should be sited with different floor elevations to achieve height variation.
- At site perimeters with high off-site visibility, buildings should be sited with a staggered arrangement and screened with mature vegetation to minimize the "wall effect".

- For multi-family projects, stagger alignments of buildings both horizontally and vertically to create unit identity, privacy at entry and private outdoor space, and to share common open space.

- Building sites should be selected so that construction occurs below the ridgeline.

- The roofline, based upon maximum permitted height, should not extend above the line of sight between a ridgeline and any public right-of-way, whether the ridgeline is above or below the right-of-way.

- The slope of the roof should be oriented in the same direction as the natural slope of the lot.

- Significant views of the natural ridge silhouette from public rights-of-way and other public spaces should be retained.

- When a major building elevation will be visible from off-site, appropriate combinations of screening and design treatment should be taken to reduce the bulk of the structure.

GRADING, DRAINAGE, CUTS AND FILLS

Mother Nature rarely offers us a site that fits the shape of a house. When the time comes to start construction, it is easier to change the terrain than it is to design around the slopes and imperfections of the land. There are two types of changes that can have a great impact on the natural contours of a site: cuts and fills.

Cuts are made when the slope of a lot rises and the house doesn't. This is commonly seen on upslope lots, those that rise away from the street. Fills are made when the house is placed on a pedestal or a pile of dirt intended to hold the home higher than the natural terrain. Both of these changes should be held to an absolute minimum.

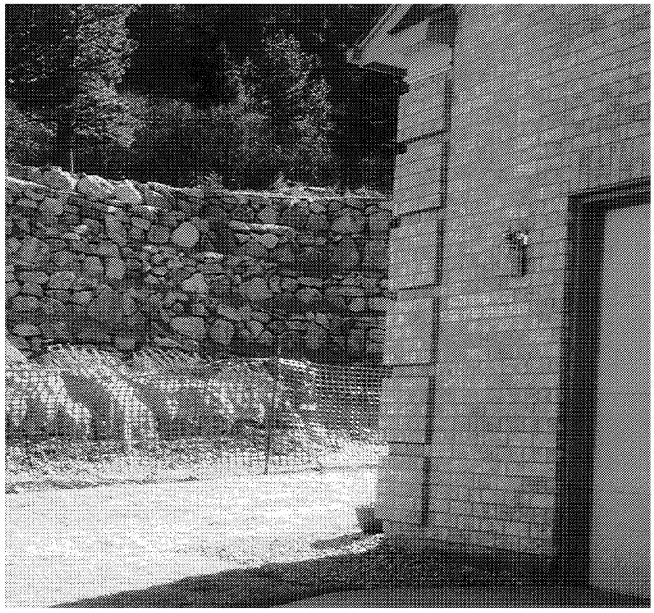
There are a lot of reasons given as to why cuts and fills on the lot are desired. They are used for all of the following:

- To create basement walkouts.
- To make flat yards for a play or recreation area.
- To achieve drives with workable slopes.
- To carry drainage away from the house.
- To permit sewage outflow from the basement bath.
- To improve views.
- To reduce the building height calculation.
- To give structural support and frost protection to foundations.
- To make the building design compatible with the existing topography of the lot.

Although some of these reasons are better than others, the City takes a dim view of excessive or unnecessary cuts and fills. Plans which make inordinate use of cuts and fills *will be denied.* Large cuts into a slope usually indicate that the wrong house design is being used for the conditions of a site. Building a flat house on an upward slope is akin to placing the proverbial square peg into a round hole -- it doesn't fit. If a lot runs uphill, then a house should be designed

to match that flow. If a lot is mostly flat, then it is not a good idea to dig a basement walkout. Even worse, however, is piling on the fill.

House inappropriately placed on fill platform.



Excessive cut on upslope lot to accommodate a house designed to be placed on a flat lot.

The problem with fill is that it has a tendency to return to the natural grade. A house built on fill is generally less stable than one placed on natural soils. Unless proper compacting and retaining practices are followed, fill will continue to compress on its own. Fill around a house tends to settle or wash into the surrounding vegetation eventually smothering it.

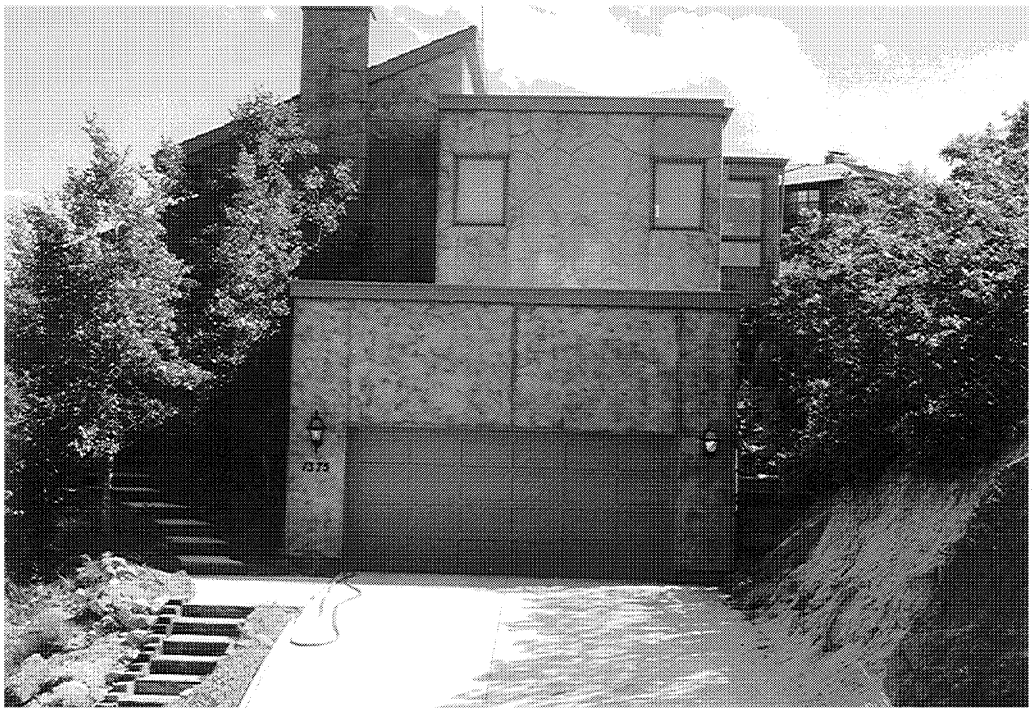
As a rule of thumb, it is safe to observe the following:

CUTS ARE BETTER THAN FILLS AND NEITHER IS BETTER THAN EITHER

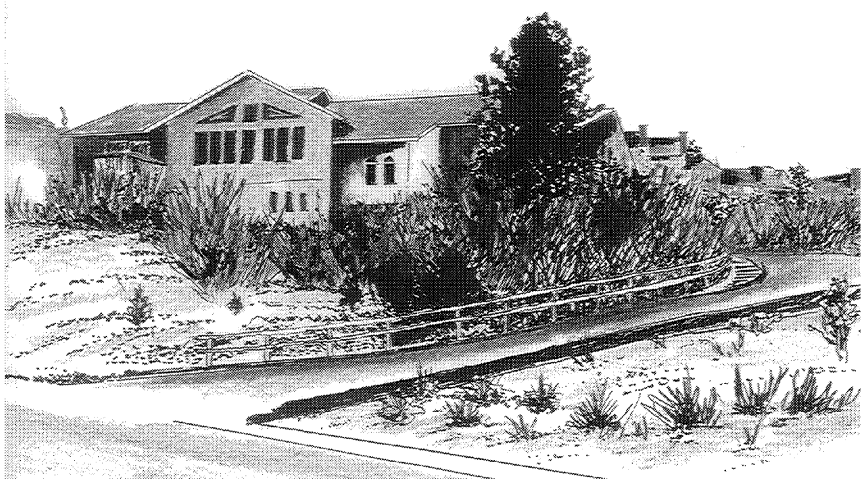
◊ Design Objectives - Grading

It is in the interest of all to create marketable homes which preserve the natural characteristics of the hillsides. These types of houses sell well, have less negative impacts on the environment and are pleasing to look at. From the perspective of good hillside development, these goals are met by adhering to the following construction and design practices:

- Houses should be designed to fit the site rather than modifying the site to fit the house.



- Foundation corners should match the natural grade as much as possible.
- Limit grading to that which is necessary to construct the house, drive and a limited area for yard purposes.
- Design to retain as much of the natural landform as possible.
- Use foundation systems and home designs to take up grade.



- Use driveways to take up grade.
- On a limited basis retaining walls are acceptable. They are not acceptable when their purpose is to create flat yards.
- Drive-under and/or detached garages are encouraged on very steep grades.
- Site the house and use construction techniques which allow wastewater services to be provided without the use of fill.

- Mechanical solutions to solve wastewater problems are preferable to site modifications.

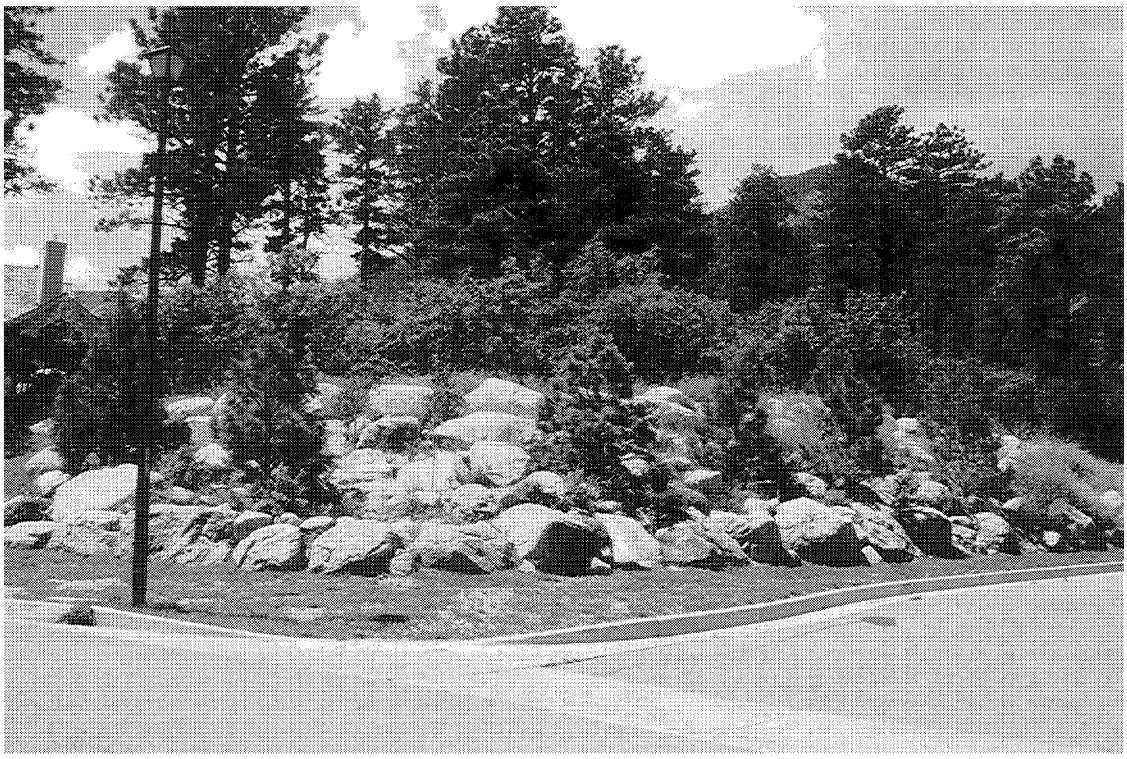
Standard house designs should only be used if they are designed to work with the existing topographic conditions of the lot

- Avoid an angular appearance of graded areas by smoothing out contours and sloping away from the foundation rather than using retaining walls. Graded slopes should be between 2:1 and 5:1.

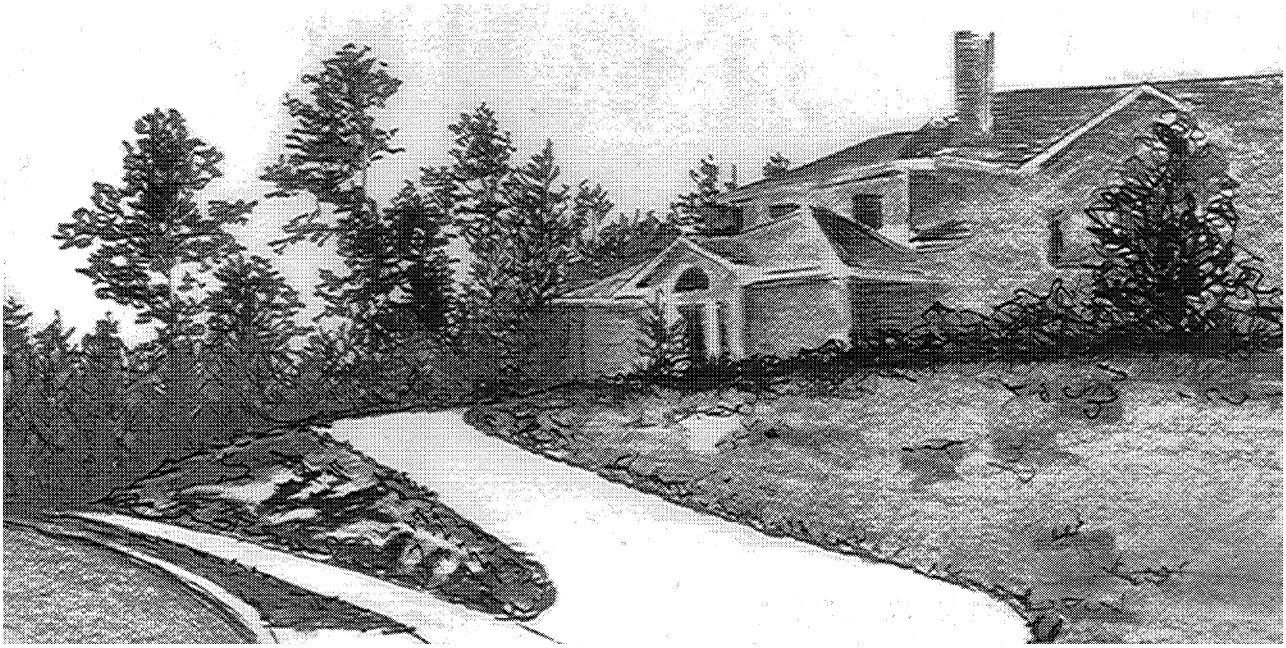
◊ **Grading Review Requirements**

It is difficult to set absolute limits on what is acceptable grading for a hillside lot. Sometimes an exceptional measure may be needed to work a house into a site and these proposals should be discussed with the plan reviewer as early in the design process as possible. In the majority of cases, however, certain limits should not be exceeded. The following standards are used by the Development Review Unit of City Planning as a basis for evaluating proposed grading plans.

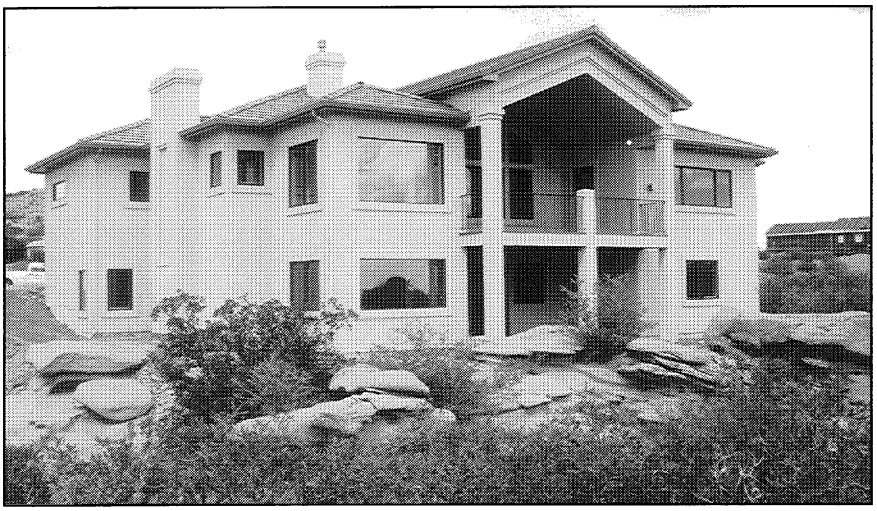
- Retaining Walls - If retaining walls are necessary, they should be limited to a 4' maximum height per wall with no more than two tiers.



- Tiers should be separated by at least 4'-6' and each tier should be screened from the street as follows; one 5 gal. shrub every 4' and one 6' tree every 15'. At least half of the trees should be evergreen. Relief may be granted for shorter (height and/or length) retaining walls and for walls which slope back and contain natural plantings. Retaining walls not seen from the street are of lesser concern. Builders are encouraged to use foundations as retaining walls to retain slopes.



- Driveways - The maximum slope is not to exceed 20%. Consideration should be given to the placement of the house so that the driveway may be used to take up grade. Drives longer than 30' should be narrowed to 12' in width as quickly as possible.



- Walkouts - Builders should select sites for walkouts which have a natural fall of at least 8' through the building footprint area. Cuts or fills for walk outs should be designed to minimize the impact upon existing Mountain Mahogany, Scrub Oak and Pines.

- Revegetation - Fill and cut slopes shall be stabilized in a manner which prevents erosion. Acceptable slope treatments may include hydromulch seeding, netting, small retaining walls, and the planting of trees, shrubs and flowers or any combination of these. The appropriate treatment will be determined depending on the specific slope conditions.

- Cuts vs. Fills - Cuts are preferable to fills as they are more stable and have generally less impact on surrounding vegetation and off-site views. Fills greater than four feet are permitted only when there are unusual circumstances such as severe topography or restrictive soil conditions. Cuts and fills should be severely limited in areas with slopes of 25% or more. Front entryway walks are limited to the same fill constraints

as the house. If there is a grade change of four feet or more between the driveway and the front entrance, the house design may have to be modified to use steps or decks rather than fill to take up the grade.

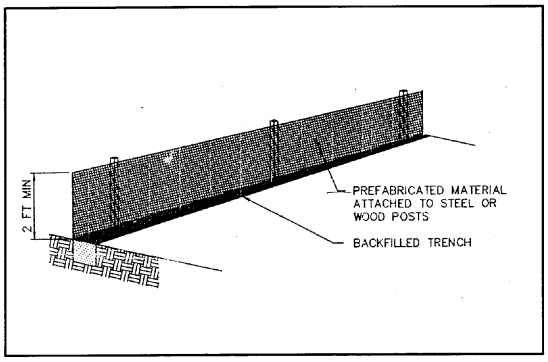
- Protecting Vegetation - Grading around the house should be limited to ten feet or less to minimize its impact on existing vegetation.

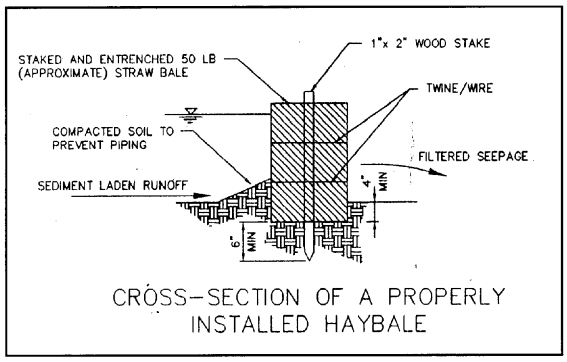
- Protecting Natural Features - If a site has unique geological features such as mushroom rocks, significant rock outcroppings or cliff faces, extraordinary care must be taken when building on these lots. In order to preserve a sites special attributes, the house should be designed to fit around the significant features.

- Site Excavation - Construction equipment and stockpiled soils should be stored only in areas which are to be disturbed for the construction of the house. Recommended fill storage areas include driveway pad locations and previously disturbed street cuts.

◊ Drainage and Erosion Control

Builders must direct the drainage from their lots so that it either flows into the public storm water system or maintains pre-existing lot to lot patterns. Roof and hard surface runoff should not be concentrated and improperly diverted onto downslope lots. During construction, drainage problems should be temporarily controlled by using straw bales and/or silt fences to slow and filter lot to lot drainage. In no cases should mud or sand be allowed to cross property boundaries. Erosion should be minimized on a site by revegetating the disturbed area of the lot as soon after construction as possible. Slopes exceeding 2:1, must be protected immediately by straw netting, hydromulching, silt traps, riprapping along drainage channels or by using other similar methods.





WORKING WITH VEGETATION

The image usually associated with living in the foothills is one of homes nestled into a setting of mature pine stands and rolling hills covered in Scrub Oak and Mountain Mahogany. Indeed this vision is so alluring that many of our hillside subdivisions; The Woodlands, Mahogany Vale, Woodmen Oaks and Point of the Pines, bear names that reflect their intended glory. If the overall character of hillside areas is to be maintained, the emphasis must be placed on incorporating the existing vegetation into the site design. Some of the considerations which should be embodied when matching a home to a site are as follow:

- Hillside characteristics help set the tone for Colorado Springs' image and desirability as a place to live.
- The streetscape within hillside developments should contain elements which reflect the City's natural hillside setting.
- Maintaining the natural environment preserves wildlife habitat and migration corridors.
- Native vegetation is suited for low water landscaping since it has evolved to be drought tolerant and can exist on the historic natural levels of precipitation.
- Minimizing disturbance of existing plants prevents erosion and sedimentation problems.

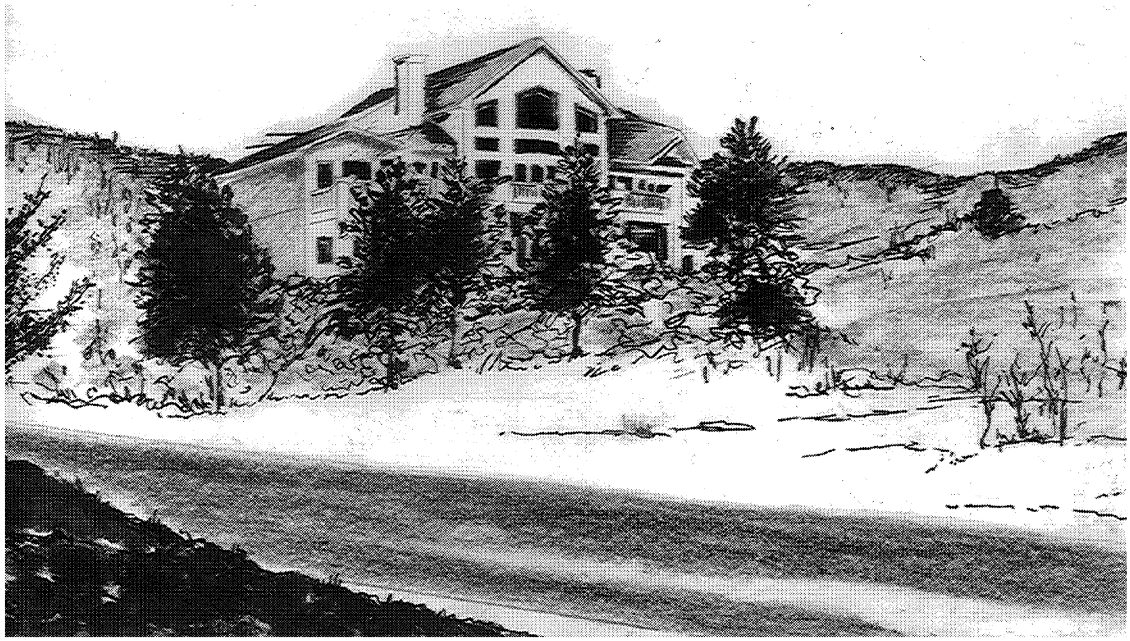
- Mature natural hillside flora has value which cannot be replaced.
- Existing vegetation provides a privacy screen between neighbors and between the house and the street.
- Vegetation which is preserved, offers a real dollar value in landscaping already in place and in improving a homes curb appeal for sales.

There are bound to be conflicting ideas in attempting to reach a balance between the need to preserve natural vegetation and the desires or requirements of contractors and homeowners. Below are some conflicts which have been identified as inherent to building on vegetated lots.

- Foundation excavation and over-digs in poor soil conditions require the removal of all vegetation within the dig area.
- Vegetation must be removed for cuts and fills.
- Often, homeowners want to site houses in locations which are covered with significant vegetation.
- Homeowners desire level lawns, patios, and recreation areas.
- The demand for basement walkouts exceeds the supply of lots which can naturally accommodate this type of house. This results in houses with forced walkout designs and unnecessary cuts.
- Frequently, houses are sited on the highest point of a lot to achieve views without consideration of their effect on existing vegetation and off-site visual impacts.
- Vegetation is removed to improve views.
- It is easier to construct houses with overgrading versus incorporating existing vegetation into site design.
- Vegetation is removed to reduce fire hazards and to limit ladder fuels.
- Vegetation is removed with the installation of utility lines.
- There is a perception that natural vegetation does not have as much a value as formal landscaping.

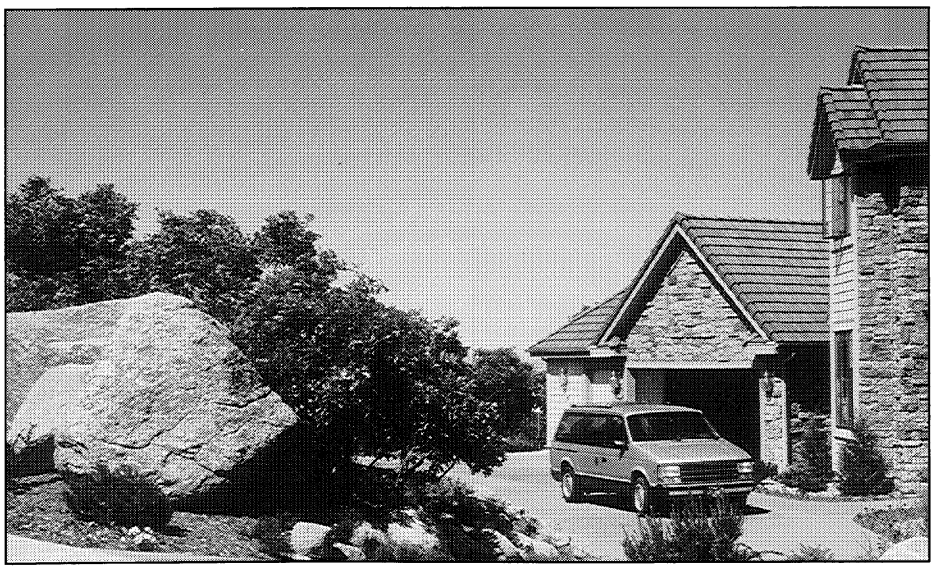
◊ Design Objectives - Working with Vegetation

One of the main objectives in protecting the existing vegetation of a site is to screen the bulk of the house. Although a house can be beautiful in its own right, the natural characteristics of a lot can only be maintained if the home is designed to complement the site rather than the other way around. In designing this home, architects, builders and homeowners should assimilate the structure to the site it is placed on.



The following design objectives should be addressed in the placement of houses on hillside lots:

- Houses should be sited to incorporate existing vegetation into the design to preserve the natural hillside image and character of the area.



- Emphasis should be placed upon preserving the vegetation in the front yard area to project a hillside appearance from the street.

- Existing vegetation should be used to soften structural mass and blend the house into the natural setting. A two or three level home should have most of the first floor screened by Scrub Oak and trees. In this way, the house almost appears to grow from the lot like the trees. Small breaks in the vegetation can enhance this image as seen from the street.

- The amount of vegetation which can be removed depends on how much is existing in the first place. Lots which are heavily treed are bound to lose some. Sites with limited natural vegetation may have to be designed with extra care to retain as much as possible.

- Cuts and fills should be designed to limit their impact upon areas containing Scrub Oak, Mountain Mahogany and pine trees.

- Lawn, patio and formal recreation areas should be limited if their construction will require the removal of significant vegetation or the creation of cut and fill areas.

- Natural slope and vegetation should be incorporated in a manner which preserves the hillside characteristics.

- It is recognized that selective removal of natural vegetation is necessary to reduce the risk of wildfires.

- Utility line installation should be designed to avoid the removal of natural vegetation where possible.

- On heavily vegetated lots where clearing is required, emphasis should be placed on removing smaller and diseased vegetation and saving larger, healthier growth.

- If decks are located close to trees, post and beam systems should be used rather than foundations, as this is far less destructive to the roots.

- When siting a house for views, primary consideration should be given to the preservation of existing vegetation.

- The optimum coverage for a lot in terms of healthy trees, minimized fire hazard, and maximum real estate value, is approximately 140 mature trees per acre. In the field, this has the appearance of a moderately forested lot with trees just touching each other.

WHY SAVE SCRUB OAK?

One of our most durable and hardy native shrubs, Gambel's Oak or Scrub Oak has evolved to nearly a perfect fit with the Colorado Springs environment. With a northern range limit around the Denver/Boulder area, Gambel's Oak is the predominate woody deciduous shrub of the Pikes Peak region. There are at least four forms of Scrub Oak that grow here naturally. These range from highly branched medium sized shrubs with extensive suckering to single stemmed trees of 30 feet or more. All forms tend to grow in thickets with intervening open areas.

Scrub Oak is a slow growing shrub that does not take well to transplanting. Once established, however, the plant is a survivor. A deep and expansive root system is the key to Scrub Oak's success. A year old seedling may have no more that four leaves, but can have a 12" root. In the winter, the water absorbing portion of the roots are shed and all cell activities cease. As a result, no energy or moisture is lost to the soil. This, however, leads to an intolerance of excess moisture in the dormant seasons. In the spring time, Scrub Oak is one of the few plants that initiates new growth before it leafs out. This is one way that the Oak survives late Spring freezes while other less robust plants may die.

Fall is the period for reproduction and preparation for the winter. While the Scrub Oak's acorns normally provide food for a wealth of animals and insects, in certain years the acorn production may be turned completely off. As a result, dependent animal populations go hungry and neighboring subdivisions see an influx of bears and other animals searching for alternate food sources. The year following a shutdown is usually an acorn bonanza. In this way the Scrub Oak plants insure that there will be plenty of acorns for reproduction and not as many consumers to eat them.

The thicket growth nature appears to benefit Gambel's Oak in several ways. First, when the leaves fall during late autumn, they tend to be captured around the base of the Scrub Oak. This creates a natural mulch which leads to water retention and improved soils. In the winter, the thickets act as snow fences, capturing the snow which blows off the grassy gaps between stands. In effect, the Scrub Oak is harvesting the moisture from the snow

For a low maintenance, self-sustaining landscape plant, Scrub Oak is hard to beat. It offers free shelter and food for wildlife and it provides a natural privacy screen for the house. At $30 or more for a new five gallon container, the Scrub Oak that you save can add up to thousands of dollars in landscaping not needed. And as can be appreciated by anyone who has ever endured the months it take to build a new home, with Scrub Oak, your landscape is already in.

◊ Vegetation Review Requirements

The following review standards are to be used by the Development Review Unit of City Planning in evaluating the impact of house placement and construction upon existing vegetation:

- Site plans should reflect any vegetation which is to be removed, replaced or relocated.

- All vegetation within 30' of the house perimeter and within the house structure should be shown in detail. Less detail is needed for vegetation beyond 30'.

- Show the anticipated location of utility service lines. When possible, these lines should be run under, or immediately adjacent to, the driveway location. If utilities are to be run on another part of the lot, the vegetation must be protected by using narrow trenches, laying lines to avoid significant trees and shrubs, and through other mitigation methods such as augering.

- Vegetation within 10' of the structure (with the exception of the deck area) may be removed if necessary to comply with the Fuels Management Ordinance.

- No vegetation is to be removed within Preservation Areas except to comply with the Fuels Management Ordinance.

- Trees over 12" in diameter are considered irreplaceable and should not be removed from a lot unless there is no other location for the house.

- Trees or other significant vegetation located between the house and the street should only be removed if they are diseased or if they obstruct the only feasible route for the driveway.

ARCHITECTURAL FEATURES

While there is no one style that defines Colorado Springs, there are many building elements that make sense in the hillsides from both an aesthetic and a practical perspective. Quality design in a home makes it not only more livable, safer and attractive, it can add greatly to the expected resale value. Even though there are few architectural features that are required by the Hillside Ordinance, there are many aspects of home design which are greatly encouraged. A positive style element can make the difference in changing a borderline denial into an approved plan. If, for example, a home is placed out on a ridge further than necessity requires, a low profile design with a highly articulated roof line might make the difference in getting the plan permitted. Although it is not the intent of the City to regulate individual tastes, it is ultimately impossible to separate a homes design from the characteristics of the lot on which it is located.

◊ Design Objectives - Architectural

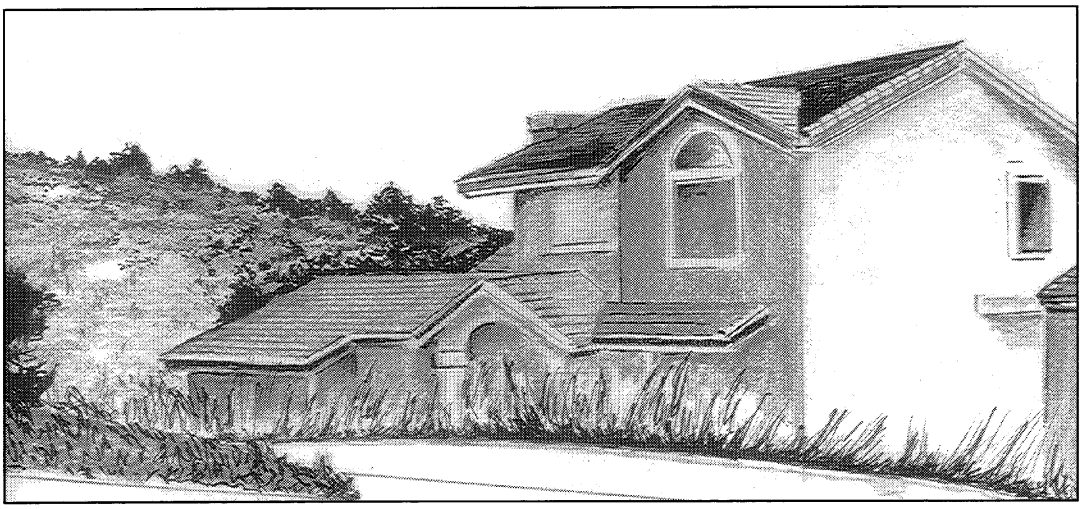
The following architectural objectives are encouraged when designing a home for the hillside areas.

- Mass/Height - Homes should not appear overly prominent or obtrusive as seen from the street, neighboring properties or off-site. One story houses are encouraged, particularly homes which are placed close to the street or which have locations which are highly visible from off-site vantage points.

- Use of Natural Appearing Materials - The following building materials are encouraged; unpainted wood siding, exposed wood structural members, logs, bricks, stucco, and natural stone masonry. Roof shingles or tiles should consist of natural colored metals, class C or better wood shakes, concrete, fiberglass, asphalt or clay. For all of these materials, dark or earthtone colors are encouraged. If a hillside home is to blend in to the site, it should limit the use of large expanses of glass, exterior plastic, vinyl siding or any reflective or shiny materials.

- Color - Color schemes for the both the building and roof should blend in with the natural landscape of earth toned soils, bedrock, and natural woodland, brush, and grassland vegetative growth. High contrast or bright colors should be avoided. White or other similarly bright colored homes can be seen from many miles off site and can make a house appear much larger or bulkier than it really is.

- Building Form - Building form should be planned to enhance to the site's natural features. The form, mass, profile, and architectural features of the structure should be designed to blend with the natural terrain and preserve the undulating profile of the hillside. Positive ratings are offered for avoidance of multi-story structures on ridgelines and on all sites lower profile homes are encouraged. Split level designs and stepped foundations which mirror the slope of a hillside are encouraged. Structures should be cut into the hillside to reduce visual bulk by being fully or partially below grade.



- Long unbroken roof lines should be avoided. Instead, roofs should be broken into smaller components to reflect the irregular natural hillside patterns. The roof should be oriented in the same direction of the slope contour and large gable ends on downhill elevations and excessive cantilevers or overhangs should be avoided.

Poor Design
For Downslope Lot

- Use varied and contrasting horizontal and vertical building planes to create various light, shade, and shadow patterns. Avoid large single form structures.
- Avoid large expanses of a wall in a single plane on downhill elevations.
- Detached parts of dwelling, such as the garage, are encouraged, when appropriate.
- Avoid using overhanging decks or decks elevated on poles.

CONSTRUCTION PRACTICES

The best possible landscaping plan for a hillside house is the one that was there before the house was built. Typically, when a homeowner moves into a newly constructed home, one of the first things to do is to start landscaping. This job can cost many thousands of dollars and requires years of growth and maintenance to bring the yard to maturity. Even when finished, the new landscaping may never be as well suited for the local environment as the indigenous trees and shrubs. It makes sense, therefore, for the City, developers, builders and homeowners to work to save as much of the initial site as they can.

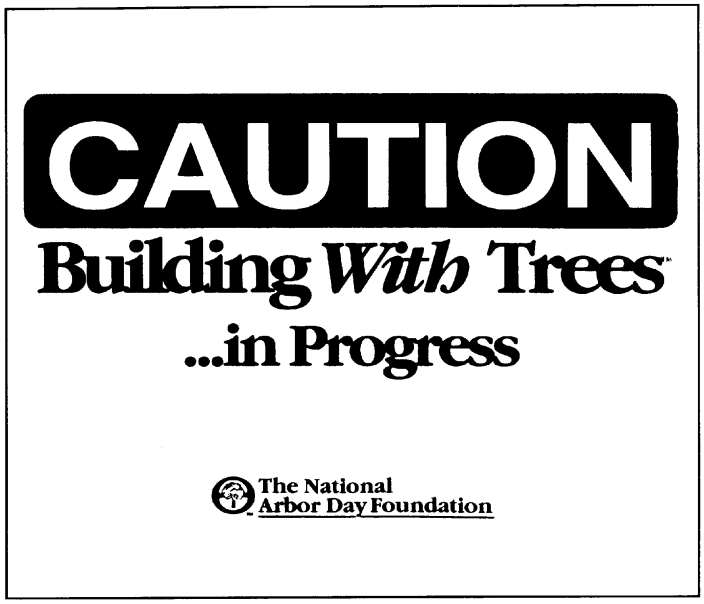
"A study by the U.S. Forestry Department showed that well placed trees can increase the value of a house by as much as 20%."

From Good Design Pays, Grant W. Reid, ASLA Colorado Green, Winter 1995, vol. 10. No. 4.

Saving vegetation on a site takes more than bulldozing around a tree rather than through it. Assuming that the house designer and builder have incorporated the themes expressed in this manual, a plan will have been developed where the house fits the site and the surrounding vegetation will have been preserved. Now it is time to put all of the planning into action. The greatest disturbance to a site occurs during grubbing, excavation and home construction. A little extra care during this period will make the difference between a house that appears to belong on a lot and one that seems as if it were merely dropped from the sky.

◊ **Building with Care**

The probability that existing trees and shrubs will survive in the face of construction project will be the highest if they are left alone. This means keeping equipment, grading activity, dirt and materials away from the vegetation to be saved. The general contractor should inform the subcontractors of the note regarding the importance of saving vegetation. On some sites contractors have imposed fines for destroying vegetation that was supposed to be saved. Following are construction practices that should be followed at every job site.



- Before grubbing or clearing a lot, the area to be preserved should be marked with ribbons or roped off for protection.

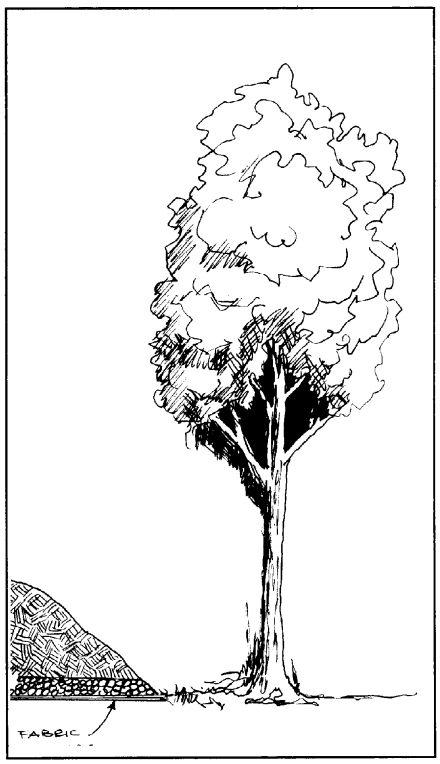
- Snow fencing should be placed around trees a distance equal to the size of the individual tree's drip zone. This area can be calculated by measuring the diameter of the tree at breast height. Each inch of diameter is equal to one foot of drip zone. For instance, a 12" diameter tree will require a 12' wide drip zone. Nothing should be allowed within this area.

  - Avoid compacting the soil over a trees root zone. By driving or paving over roots the tree can be suffocated as it looses crucial air spaces in the soil. A tree is most vulnerable to compacted soils during soil drying periods, usually a day or two after heavy rain or irrigation.

  - If it is necessary to fill over the root zone, compacted soils can be avoided by sandwiching fabric, rocks and more fabric under the area to be filled.

  - Fill placed directly on the roots may not exceed a maximum of 6" in depth.

  - If fill creates a tree well or depression around a tree or shrubs, this area needs to be drained so that the vegetation is not drowned by the pooling of rainfall or irrigation.



If a tree's roots must be cut, the branches should be trimmed by an amount equal to the percent of roots that were lost. Roots should be pruned cleanly prior to digging and not ripped off by heavy equipment. Cutting more than 30% of the roots endangers the health of the tree, and over 40% affects the tree's stability.

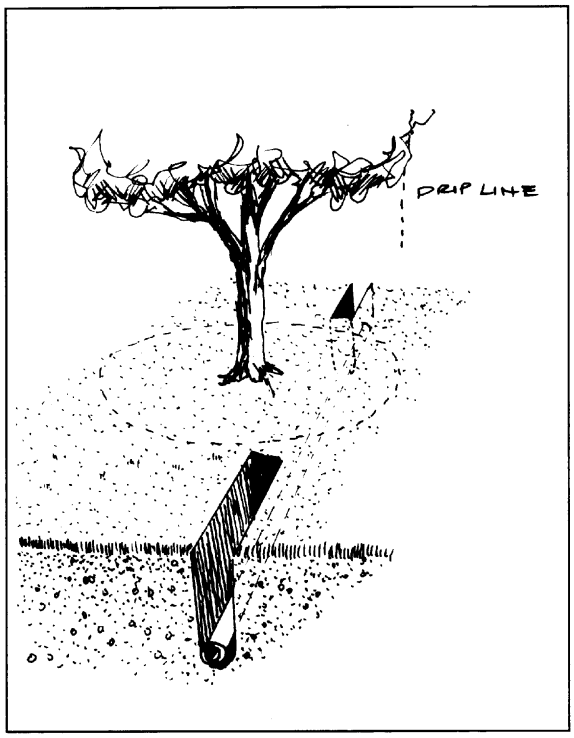
- Utility trenches near trees should be avoided. If a line must be close to a tree, tunneling or augering should be used.

- It is better to tie branches back from a house in order to erect scaffolding than it is to cut them.

- Broken branches and trunk scrapes should be repaired promptly.

- Do not clean or dispose of paints, thinners, concrete or any other chemicals near trees. Spread heavy tarps over roots if sheetrock is to be cut or concrete is to be mixed in the area. These materials can change the pH of the soil, weakening or even killing the tree.

- Use posts instead of trees for signs.



FINAL LANDSCAPING

Bluegrass lawns are expensive. They consume your time in maintenance, they have adverse impacts on the environment and they are expensive to water. In Colorado Springs we put 70% of our summer water on our landscaping and we use ten times as many pesticides and herbicides per acre as we do for farmland. The fact is, we live in a semi-arid climate. Although we naturally receive an average rainfall of 15" of each year, we put two or three times that much on our lawns.

Running a gasoline-powered lawn mower for an hour emits the same amount of air pollution as driving a car for 350 miles.

In some places, sodded lawns make sense. No one would begrudge homeowners the use of small areas of grass. However, it is only sensible to landscape as much of our yards as possible with plants that have lower water needs. The good news is that there are a great many alternative water consuming plants to choose from.

◊ Designing with Nature

A landscape plan for a hillside home does not have to be a complicated undertaking. Residential landscape planning can be done by anyone from horticulturists to novices who simply have the desire to work in the yard. The tools are simple and the costs of the plants and raw materials are within the reach of everyone. It is important to keep in mind that a homes landscape will evolve over years and it is not necessary to complete the entire project in the first summer.

There are essentially three steps to a healthy yard; planning, preparing and planting. The first step is, perhaps, the most important. The time spent on preparing a good hillside landscape plan will pay off for years to come and in the resale value of the home. Colorado Springs has a

natural environment that is tough on plants. With limited rain, unrelenting high altitude sunshine and strong seasonal changes, many plant types that work well in other areas of the country become a maintenance nuisance or even die if planted here. Plants should be selected carefully to ensure that they can survive with minimal water and maintenance once established. Soils preparation and planting are when you take your good ideas and make them work.

◊ Planning

Any good plan needs to be written down. On a piece of graph paper or any scaled plan which shows the location of the house you should start by defining where things are. Chart the location of the existing vegetation and note the environmental factors or stresses which allowed these plants to live there. Consider the amount of sunshine exposure which is received in a given location and highlight areas which receive the bulk of the drainage. Indicate any other microclimate factors that will affect the types of plants to be selected. On this plan, show areas that you might have a special interest in adding your own individual touches. You might, for instance, wish to plant an evergreen tree to offer privacy in front of a bathroom window or perhaps you want to establish an informal flower garden. This is the time to set the landscaping tone for the life of the house. In developing your plan keep the following factors in mind:

- Sizing - Plants have widely differing growth rates and ultimate spread size. On your plan you should draw plant types at their mature size. Try not to overly bunch trees or they will end up competing with each other for water and sunshine. While some trees such as Aspen and Douglas Fir like company, others such as Ponderosa Pines need room to expand. Place trees far enough away from the house so that at their full size they will not create a fire hazard or make the house appear imposed upon.

- Water - You should strive to use plants that have the same water needs as those which grow naturally in the area. In most cases this means using low water plants or xeriscaping. There are a wide variety of low water plants available which have the same attributes of their thirstier cousins, but come with far fewer problems. A listing of low water trees, shrubs, perennials and other vegetation which thrives in the Colorado Springs environment is included in Appendix F. of this manual.

- Irrigation - If an irrigation system is to be used, it should be planned to provide zone watering or differing areas of intensity depending on the needs of the located there. Group plants with like water needs together. Heavier irrigation, for instance, might be needed in turf areas, while a low output bubble system might work for flowering shrubs. Certain types of plants, such as pre-existing Scrub Oak, need no supplemental water.

- Sun - Plants have individualized sunshine requirements. Your local plant nursery can help you to select the best types of vegetation for the given conditions. Direct sun tends to dry out exposed soils through evaporation and increased heat. A vegetative covering in these areas will keep more moisture in the soil. In addition, trees and large shrubs can be located so that they work as a home energy saving system. Deciduous trees growing in front of south facing windows will block the hot summer sun with their leaves. In the winter, however, the suns rays will be able to pass the leafless trees and will warm the house.

- Slope - Sloped areas tend to lose water by increased run-off. In these areas, it may make sense to plant ground covers which are especially good at holding soils together and which have reduced water needs. Another option is to install a natural rock garden.

- Compatibility - The overall objective of the plan should be to concentrate plants with similar needs in areas where the optimum conditions exist. If you are going to irrigate a small area of lawn, then this is not a good location for Pinon Pine trees. The two plant types have greatly different water requirements and constant sprinklering may cause the Pinon's roots to rot. Keep plants with similar water needs together and those with unlike needs apart. Plants can also be compatible in the way they work together. Certain perennials work well in the shady understories of trees where they are protected from the direct sun and wind. In return, these plants help keep the ground around the trees roots from drying out.

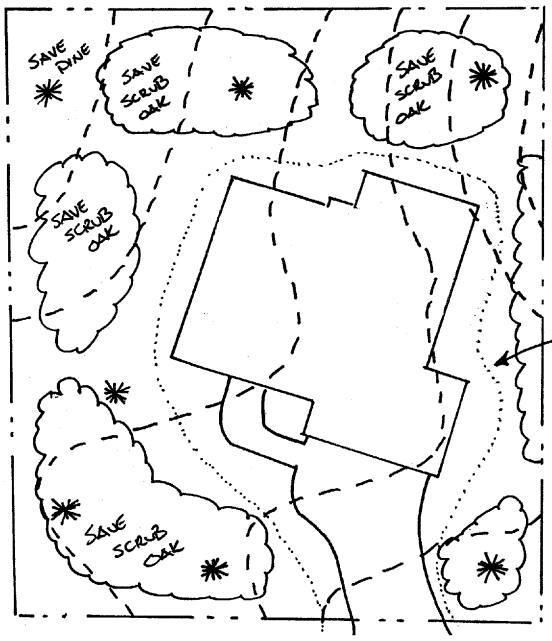
◊ Preparation

There are two essential tasks that need to be completed in order to prepare bare ground for planting. You should shape the surface and amend the soils to consist of a high level of organic material. The first step, shaping, is the final procedure in your overall grading plan. Keeping in mind the points covered previously in this manual, your final grading should be done with an eye toward protecting the existing vegetation. Shaping the previously disturbed areas, however, is a necessary step in finalizing the fit of the house on the site. A lot should be shaped to achieve the following:

- Do not disturb any areas other than those already impacted by excavation and house construction.

- Hand groom excessive (over 6") accumulated soils off the roots of Scrub Oak or trees.

- Finalize the lot drainage so that water is carried away from the house foundation. Water which is allowed to permeate downward along the foundation can affect the sub-surface soil conditions, possibly leading to damage of your home.



- Round sharp edges of cuts and fills so that the area to be planted will easily blend into the surrounding terrain.

- Provide depressions and catch basins so that snow and rainwater can percolate into the ground rather than run-off unimpeded.

- Design swales to run across flatter areas (between 2% and 6% grade) rather than down steep pitches. This slows the velocity of the drainage and increases the amount of water filtered into the ground.

- Direct roof and hard surface runoff into catch basins.

- Install an in-ground water cistern. Provide outlet holes to allow leeching of the collected water into the surrounding ground.

The next step in preparing for planting is to amend the soils. This takes place in several forms; modifying the structure, augmenting with organic additives, and mulching. Some considerations in taking these approaches are as follow:

- Sandy soils easily lose moisture and should have a layer of topsoil and composted manure thoroughly mixed into the top 6" of natural soil. This encourages deep root growth and reduces the need for constant watering.

- A soil heavy in clay lacks air spaces and should be amended with coarser sands and organic materials. The ideal mix has as much as 50% pore spaces and a soil balanced with sand, silt, and clay.

- Organic composts can be made of grass clippings, kitchen wastes (organic materials only), leaves, manure, peat, pine needles, sawdust and straw. This compost material can be turned into the soils at any stage of a yards development.

- A top layer of wood or bark mulch can be spread in landscaped areas to improve the water retention and to add additional organic material to the soil. Mulches should be between 3" and 6" deep to inhibit weed growth. In general, mulches should be applied soon after planting to encourage better root growth and to delay late season damage due to freezing.

- Use fabrics which allow water and air infiltration instead of plastic under mulches. Plastic is impervious to water.

- Avoid rock mulches. These offer no organic supplements, are not as effective in preventing weed growth, and generate unhealthy levels of heat to your plants. Perhaps most importantly, rocks make it nearly impossible to remove weeds.

◊ Planting

The final step, planting, may go on for years. It is better to take time in selecting the most appropriate plants for a site than it is to provide an instant landscape cover. The central idea when planting in the hillsides is to develop a low maintenance, low water requiring vegetative cover. Once the major themes such as screening or wildflower gardens have been established, the homeowner can concentrate on infill planting and maintenance.

A free street tree may be available for your new home through the City Forestry Office. For more information call 578-6698.

General maintenance of a xeriscaped yard is far simpler than for bluegrass sod. Trees and shrubs can be trimmed for optimum growth and shape, and occasional fertilizing and weeding is needed. For the most part, however, xeriscaping takes very low maintenance. In some areas such as wildflower gardens, no weeding is needed. Although any plant needs an initial season or two of watering to get established, once they take, the supplemental water needs drop drastically.

The possibilities are endless when landscaping a home in the hillside. There are plants that encourage wildlife, and plants which offer an abundance of year round color. Some plantings are done to create privacy while others are intended to highlight the architecture of the home. With some imagination, planning and a shovel, it is possible to create a house that I fits the hillsides. For further information regarding the selection, care and maintenance of your landscaping, you can contact the following:

- Colorado Department of Agriculture Division of Plant Industry. Pesticide laws and information. (303) 239-4140.
- Colorado Nurseryman's' Association. Publishes the Rocky Mountain Plant Guide which is available at most local nurseries.
- Colorado Springs Parks and Recreation Forestry Division. 578-6698.
- Colorado State Forest Service. Specializes in trees and shrubs.
- Colorado State University Cooperative Extension. 636-8920.
- El Paso County Extension Service. 520-6450
- El Paso County Parks. 520-6375.
- U.S. Forest Service. Pikes Peak Ranger District. 636-1602.
- Xeriscape Task Force and the City Water Resources Department. 448-8717.

LIVING WITH WILDLIFE

When we put a house in the hillside, we are building in natures back yard. The deer, rabbits, squirrels and birds inhabited the forests and fields long before homes and residential neighborhoods showed up. Animals do not recognize property boundaries. They live where there is habitat, food and water. Normally these are provided for by nature. When subdivisions are built where the woods once were, the animals will continue to live near by. If the necessities for life are provided around our houses, wild animals and people will intermingle. This creates a conflict and an opportunity.

The conflict arises because humans and wild animals do not necessarily make good neighbors. If pets and their food are left outside, these might prove to be an irresistible attraction to hungry bears or mountain lions. Bears will eat nearly anything including garbage, pet food and seeds and suet from bird feeders. Mountain lions and coyotes have been know to kill pets, and in rare instances, attack small children. If wildlife is being fed by homeowners, either by purposely or inadvertently leaving out pet food, the animals become attracted to our homes. Once animals lose their natural tendency to avoid people, a dangerous situation is created. Ways to prevent potentially dangerous interactions are as follow:

- Do not feed or keep your pets outside. At night time in particular, pets are subject to attacks by mountain lions, coyotes and foxes. Dogs which run wild may pack together and kill deer.

- Clean the grease off BBQ grills and store them inside.

- Hang bird feeders and suet between trees rather than off decks. A bear will climb on a deck or tear it down to get to this tasty snack.

- Keep garbage cans out of the reach of animals and periodically clean them.

- Do not feed deer or other wildlife. Not only is deer feeding illegal in Colorado, but deer coming up to your house may draw mountain lions.

- Be aware that some types of plantings are more attractive to animals than others. Fruit trees and certain junipers may end up as deer food.

- Many animals such as skunks, raccoons and prairie dogs which are cute in the wild become pests when they move into your attic or window wells. For further information dealing with unwanted wildlife contact Division of Wildlife at 473-2945.

By living in the hillsides, it is possible to observe animals in their natural state. Residential developments in Colorado Springs are planned to preserve animal migration corridors along heavily forested areas and drainage ways. These connections allow deer and other animals to travel relatively undisturbed from one forest stand to another and to protect the quality of our waterways and environment. Since we are in a sense inviting wild animals into our communities, however, it is doubly important that we observe the safety precautions noted above. Once we have accepted the fact that man and nature can live side by side, there are many things we can do to make this condition more enjoyable.

- Learn more about the local wildlife by reading about it or visiting with any of the numerous local information agencies such as the Colorado Springs Parks and Recreation Department or the local Division of Wildlife office.

- Attract birds by providing bird houses, feeders and water.

- Plant grasses, shrubs and trees which provide food and shelter for birds and small animals.

- If you see deer or other large animals in residential areas, leave them alone unless there is an immediate threat to your safety. Tranquilizing or capturing animals can be life threatening to the animal. Even if the animal is not immediately affected, the Division of Wildlife has adopted a policy that any bear trapped more than once gets destroyed. In most situations, large animals will move away from people and houses if left alone.

- Watch and enjoy. Through quite observation, it is possible to find animals in any type of ecosystem whether it is a field or the woods. You can increase your chances of seeing wildlife by watching at dusk and dawn. Wildlife is most numerous along the forest's edges. Where Scrub Oak changes to grasses, and shrubs give way to trees, these are the places where the most animal interactions can be seen.

WILDFIRE RISK MITIGATION

OVERVIEW

Wildfire risk reduction techniques include monitored smoke alarm systems, sprinkler systems, fire resistant roofing materials which are rated Class C or higher, and fuels management measures. The City of Colorado Springs has adopted amendments to the City's Hillside Overlay Zone and Fire Prevention Code relating to fire safety measures in the Hillside areas.

Within the Hillside fuel management measures shall be utilized within the safety zone of applicable new home construction. Fuels management is defined as the modification of natural vegetation within the safety zone to protect structures from approaching wildfire, as well as to reduce the potential for structure fire from spreading to the wildland. The safety zone is defined as the area within thirty (30) feet of the main structure, not to extend beyond the property line.

It is the City's desire to provide an environment safe from wildfire while maintaining the aesthetics qualities of the native hillside.

CRITERIA

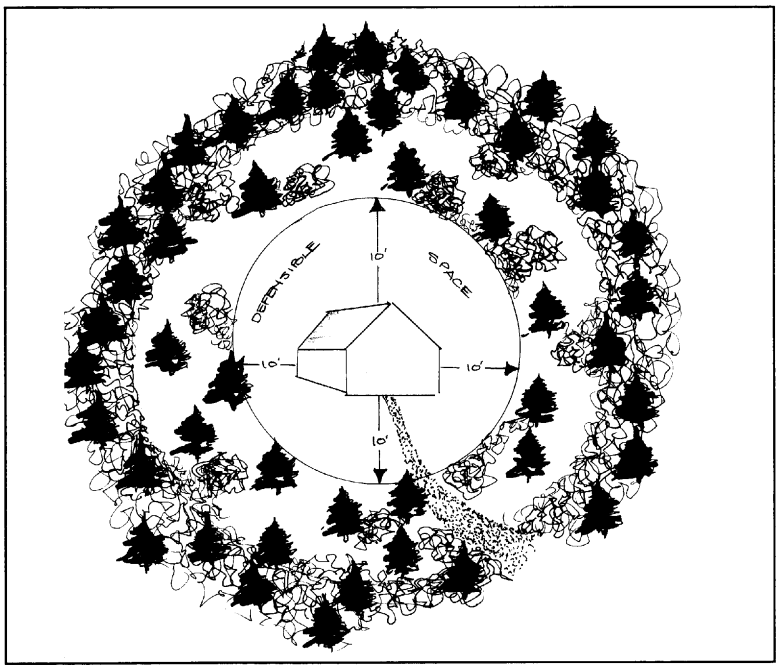
Using the following guidelines, roof materials, system requirements, and fuels management requirements shall be determined by the CSFD and the Development Review Unit of City Planning for each individual lot, as part of the building permit approval process. The following measures are required.

◊ **Fuels Management**:

All lots within the Hillside Overlay zone illustrated on development plans approved on or after April 1, 1993, shall be subject to the following fuels management requirements:

- Brush patches or clusters may be left in the safety zone, but shall be separated by clear areas of ten (10) feet or more of noncombustible materials or grass mown to not more than four (4) inches in height.

- No brush shall be allowed within ten (10) feet of the main structure. Exception: When approved by the Fire Chief, small brush patches, not exceeding one hundred (100) square feet and fifteen (15) lineal feet in any direction, may be allowed to intrude, if the structure has fire-resistant siding.



- Large trees shall not have overlapping limbs and shall be pruned of dead limbs to a height of ten (10) feet above the ground. Tree clusters may be allowed if sufficient clear area is provided.

- Tree branches shall not extend over or under the roof eaves and shall not be within fifteen (15) feet of a wood burning appliance chimney.

◊ **Fire Protection Systems**:

A monitored smoke alarm system or a sprinkler system is required for any new hillside zoned home built after April 1, 1993, id located on a lot which lies beyond one-thousand (1,000) feet along a cul-de-sac or if located on roadways with grades in excess of ten (10) percent if said roadways are the only vehicular points of access to the home.

◊ **Roofing Materials:**

After June 15, 1993, a minimum of a Class C roof covering shall be installed in all roofing and re-roofing applications for buildings located within the Hillside Overlay Zone. Exceptions to this requirement may be approved by the Fire Department when specified low hazard area criteria are met.

APPLICATION TO NEW DEVELOPMENT

Fuels management measures shall be utilized within the safety zone of new homes upon lots within the Hillside Overlay Zone illustrated on development plan approved on or after April 1, 1993. In addition, effective April 1, 1993, all new subdivision plats and development plans for Hillside zoned projects shall include a statement of the requirement for fuels management, minimum Class C roofing, and, if applicable, smoke alarm or sprinkler systems. See Section E., Wildfire Risk Mitigation, of the Hillside Overlay Zone Ordinance, contained within Appendix A. for the specific development plan and subdivision plat note language and statements.

APPLICATION TO EXISTING DEVELOPMENT

Fuels management and fire protection systems are not required for homes built prior to April 1, 1993. However, all new roofing and reroofing applications must use Class C rated materials.

COMPLIANCE

In addition to the above criteria, the following shall be undertaken to insure compliance:

The Development Review Unit of City Planning shall ensure that the notes, as required by Section E., Wildfire Risk Mitigation, of the Hillside Overlay Zone Ordinance are included on all applicable development plans and subdivision plats. The Zoning Administration office shall ensure that the proper notes are included on all applicable Hillside Site / Lot Grading Plans. In addition, the Development Review Unit of City Planning shall inform the applicant of the required fuels management measures for each individual lot at time of HSS/LGP review. The Development Review Unit of City Planning will identify the structures requiring Class C roofing materials and fire protection system installation and mark the HSS/LGP plan accordingly.

The Fire Department will review all applicable building plans for homes required to install fire protection systems. The Department will review all plans, determine system requirements and issue appropriate permits.

The Regional Building Department will review all applicable plans for roofing and reroofing applications to insure that Class C materials will be used

INSPECTIONS

The Development Review Unit of City Planning will follow-up and conduct inspections to determine compliance with the fuels management requirements and other City Code provisions. Most sites will be visited twice after construction commences.

The initial fuels management inspection will be scheduled to occur prior to the Regional Building Department's framing inspection. It shall be the responsibility of the builder to request the inspection. The primary propose of the initial inspection will be to determine compliance and to prescribe mitigation or remedial actions which can be taken, at an early stage, to correct necessary violations. A HSS/LGP plan inspection will occur at the same time. Required corrective actions will be forwarded to the applicant and compliance expected by final inspection.

The final inspection will be scheduled to occur shortly after construction has been completed and prior to the Building Department's final inspection. Again, it shall be responsibility of the builder to request the inspection. The primary propose of the final inspection will be to a determination of compliance and the prescription of additional mitigation actions which may be necessary. A final HSS/LGP plan inspection will also occur at this time.

For homes that require a monitoring smoke alarm system or a sprinkler system. The Colorado Springs Fire Department shall conduct inspections. A visual piping inspection must be secured through the Fire Department prior to the framing inspection. Final inspection and approval of the system must be secured through the Fire Department prior to final inspection by the Building Department and/or occupancy of the residence."

EVALUATION LETTER

The Development Review Unit of City Planning will provide an evaluation letter to all applicants of hillside development. In addition to other information the letter will include a fuels management requirements compliance evaluation. See sample letter found in the Appendix G.

PUBLIC INFORMATION PROGRAM

The Colorado Springs Fire Department's Public Information office has prepared a booklet, A Guide to the Hillside Ordinance, designed to be a guide to appropriate fuels management and fire safety practices. It was written for developers, builders, and prospective and existing homeowners. The booklet includes detailed explanations, suggestions, checklists, renderings, and additional safety measures.

Please contact the CSFD Public Education office at 578-7025, if you would like to obtain a copy of this booklet.

GRADING & REMOVAL OF NATIVE VEGETATION FROM DEVELOPED LOTS

Whether you have built from scratch or whether you have purchased an already existing hillside home, there are certain rules which govern your ability to change the site. If you live in an area covered by the City's hillside overlay zone, City approval may have to be obtained before you build, cut vegetation or grade. The intent of the City's hillside ordinance is to preserve the natural characteristics that make the hillsides a special place. Before making any exterior changes to your home or site, you should address the following concerns:

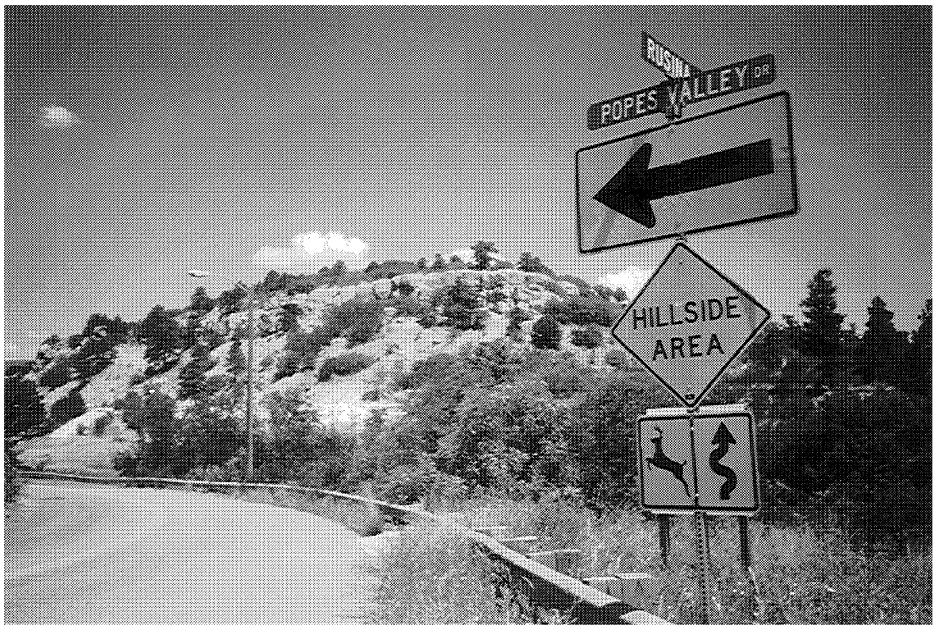
- All house or deck additions must be approved by the Development Review Unit of City Planning prior to any work being done. As with new home construction, additions should be designed to save the existing vegetation and to minimize cuts and fills. A checklist describing the required plan submittal information can be obtained from the Development Review Unit of City Planning.

- Site changes such as retaining walls must be approved by the Development Review Unit of City Planning Office. Such changes may be denied if they do not comply with the purpose and intent of the Hillside Ordinance. Retaining walls over four feet high must be designed by a licensed engineer and require a building permit.

- Normal maintenance and treatment of your yard's landscape cover may be conducted without any City approvals. If, for example, a section of Scrub Oak has died, it is acceptable to trim back the dead plants in order reduce the fire hazard and to give the new growth room to grow. It is not acceptable to remove Scrub Oak or trees to increase the size of grass play areas.

- If vegetation is removed from a yard in violation of the Hillside Ordinance, an enforcement case will be opened by the Development Review Unit of City Planning and penalties will be imposed upon the homeowner.

Vegetation within ten feet of the home may be removed without City review if necessary to comply with fire safety procedures.



APPENDIX

APPENDIX A. COPIES OF HILLSIDE OVERLAY ZONE ORDINANCES AND RESOLUTIONS

APPENDIX B. HILLSIDE BUILDING HEIGHT PHASE-IN POLICY

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APPENDIX

APPENDIX A. COPIES OF HILLSIDE OVERLAY ZONE ORDINANCES AND RESOLUTIONS

CITY ATTY'S OFFICE
CODE CHANGE REVIEW
ATTY INIT
DATE 4/15/96
COOR INIT
DATE 4/16/96

ORDINANCE NO. 96-80

AN ORDINANCE REPEALING AND REORDAINING SECTION 504 (HS-HILLSIDE AREA OVERLAY) OF PART 5 (OVERLAY DISTRICTS) OF ARTICLE 2 (LAND USE ZONING DISTRICT) OF CHAPTER 14.1 (ZONING) OF THE CODE OF THE CITY OF COLORADO SPRINGS 1980, AS AMENDED TO PROVIDE AND CLARIFY REQUIREMENTS AND STANDARDS

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COLORADO SPRINGS:

Section 1. That Section 504 (HS-Hillside Area Overlay) of Part 5 (Overlay Districts) of Article 2 (Land Use Zoning District) of Chapter 14.1 (Zoning) is hereby repealed and reordained to read as follows:

14.1-2-504 HS-Hillside Area Overlay

A. Description, Purpose and Objectives

1. Description: Certain areas of the City are characterized by significant natural features that include ridgelines, bluffs, rock outcroppings, vegetation, natural drainageways, wildlife habitat, geologic conditions and slopes that contribute to the attractiveness of the community.

2. Purpose: The purpose of the Hillside Area Overlay (HS) is to specify conditions for any type of development to ensure that these areas retain their unique characteristics, to safeguard the natural heritage of the City, and to protect the public health, welfare and safety. It is the intent of these regulations to ensure that development within this overlay zone is compatible with, and complements the natural environment as well as to minimize physical damage to public and private property. It is furthermore the purpose of this Part to allow a degree of development flexibility to protect the hillside environment. Many of these physical features if disturbed for the purpose of development can cause physical damage to both public and private properties. Development in areas designated as Hillside Area Overlay requires special care on the part of both the public and private sectors. Review of development proposals

for property within the overlay should recognize the various City Code requirements and the need to balance their application with the physical attributes of the property.

3. Objectives: The HS overlay may be used with any zone district in the City when needed to meet the following objectives:
   a. To conserve the unique natural features and aesthetic qualities of the hillside areas.
   b. To provide safe and convenient access to hillside areas.
   c. To minimize water runoff and soil erosion problems incurred in adjustment of the terrain to meet development needs.
   d. To assure type, distribution and densities of development which are compatible with the natural systems, the terrain, and the geologic character of hillside areas.
   e. To assure that the taxpayers of Colorado Springs are not burdened by extraordinary costs for services attributable solely to the development of hillside areas.
   f. To encourage innovative design solutions which meet the purpose of the HS overlay zone district.
   g. To preserve wildlife habitat and wetland areas which provide wildlife migration corridors.

The characteristics of hillside areas mean that special care and consideration are necessary in the design of these sites. The PUD zone district allows for optimal flexibility in lot design, lot size and building setbacks to conform most appropriately with the purpose of the Hillside Area Overlay. The PUD zone district is preferred in conjunction with any proposed development in the HS overlay.

The use of the Design Flexibility Overlay Zone, because of its more rigid standards and lot averaging provisions, is discouraged within areas designated with the HS overlay or when requesting the HS overlay zone district.

In order to expedite the formal review of a development proposal in the HS overlay zone, applicants are strongly encouraged and requested to meet the spirit and intent of the Hillside Design Manual and to contact the Development Services and Comprehensive Planning Division and request a preliminary review. The purpose of this preliminary review is to identify and resolve issues prior to the formal submittal. The issues associated with hillside development are complex and preliminary review is likely to reduce the formal review time.

B. Applicability

1. The predominant development type in hillside areas is single-family detached housing. Development Plan Submittal requirements in Subsection D.2.d., Development Plan Review Criteria in Subsection D.3., and Site Plans/Lot Grading Plan evaluation criteria in Subsection H.2. are primarily

intended to address issues associated with that development type. For multi-family residential and nonresidential development proposals, the above-referenced requirements and review criteria shall be addressed, recognizing that these requirements will apply on a site-wide rather than a lot-by-lot basis. All other requirements and criteria as set forth in this part shall be applied to all development proposals.

2. Approvals Required: No building or structure may be erected, reconstructed or structurally altered on land which is designated on the zoning maps of the City as being in a Hillside Area Overlay, nor shall such land be subdivided, graded or otherwise disturbed for development, subdivision, or any other purpose unless such construction, subdivision, disturbance, or development is undertaken in accordance with the requirements set forth in this section and the City Code.

3. Exemption: It is recognized by the City that not all land within the Hillside Area Overlay has the characteristics of the Hillside Area Overlay. The nature of the exemption request determines the process the property owner must follow.

a. If a property owner is requesting an exemption from all the requirements of the Hillside Area Overlay it will be necessary to rezone the property. The process for a change of zone is described in Article 4, Part 7 of this Zoning Code.

b. If a property owner is requesting an exemption from some of the requirements of the Hillside Area Overlay the exemption process is keyed to the requested action.

1) A Building Permit: Upon written request from the landowner or authorized representative, the Zoning Administrator, upon consultation with City Engineering, the Fire Department, Traffic Engineering and Utilities, may exempt property from part of the requirements of Section 14.1-2-504 of this Code. The exemption may be granted if the requested property is not characteristic of the Hillside Area Overlay so described in Section 14.1-2-504.A. above. The landowner or the authorized representative shall submit in writing a letter stating the reason for any requested exemption and list all exemptions being sought. This letter must be accompanied by a legal description of the property. Within fifteen (15) working days of receiving the exemption request, the Zoning Administrator shall respond in writing. The request will be evaluated based upon its conformity with the purpose and objectives of the Hillside Area Overlay.

2) A Development Plan or Subdivision Plat: Upon written request from the landowner or authorized representative, the Manager, upon consultation with City Engineering, the Fire

Department, Traffic Engineering and Utilities, may exempt property from part of the requirements of Section 14.1-2-504 of this Code. The exemption may be granted if the requested property is not characteristic of the Hillside Area Overlay described in Section 14.1-2-504.A. above. The landowner or the authorized representative shall submit in writing a letter stating the reason for any requested exemption and list all exemptions being sought. This letter must be accompanied by a legal description of the property. Within fifteen (15) working days of receiving the exemption request, the Manager shall respond in writing. The request will be evaluated based upon its conformity with the purpose and objectives of the Hillside Area Overlay.

C. Land Suitability Analysis

1. Purpose: The Land Suitability Analysis provides the basic information about a site's physical characteristics and features needed to assess the impact of proposed development both on and off the site. The report shall consist of both a written and graphic analysis of the physical/environmental factors which affect the site.

As not all sites will contain all of the elements listed, or because some sites may have unique considerations, the Manager may waive certain elements of the Land Suitability Analysis or require additional analysis. The landowner or the authorized representative shall submit in writing a letter stating the reason for any requested waiver and list all exceptions being sought.

2. A Land Suitability Analysis shall be required in conjunction with the City's review of the following:
   a. New master plan
   b. Major amendment to a master plan
   c. Hillside development plan

3. A Land Suitability Analysis will not be required for Hillside Development Plans which consist of only one single family home.

4. Components of the Land Suitability Analysis:
   a. Slope Analysis

Identification of slope ranges for parcels in order to assess the potential of sites for intensity of development and difficulty in provision of infrastructure and emergency services. Slope analysis shall be provided in the following increments and use a contour interval of two feet (2')

0-8% generally suitable for development
8-12% increased potential for engineering difficulties; moderate potential for activating site hazards

12-15% increased potential for engineering difficulties; moderately high potential for activating site hazards
15-25% high potential for activating hazard potential
25%+ very high potential for development difficulty; severe hazard potential

b. Vegetation and Wildlife

Grasslands, scrub oak and similar shrubs, and coniferous tree cover are major components of hillside areas. Analysis shall show the physical location of vegetation and the following items:

1) Ecosystems defined by the Colorado Forest Service
2) Assessment of Wildfire Hazard Potential
3) Wildlife Habitat and migration corridors

c. Geology, Soils and Natural Features

Geologic Analysis, including identification of significant natural features and geologic hazards and constraints which require unusual mitigation during design and construction of structures and/or infrastructure (e.g., downslope creep, debris flow, flood hazards, rockfall hazards and underground mines).

Soils Analysis, utilizing information from Soil Conservation Service, U. S. Forest Service.

Natural and Man Made Features, including identification of significant site features such as stream beds and other drainage, ridgelines and existing land uses. The *Colorado Springs Urban Growth Area Inventory of Significant Natural Features* shall be consulted in identifying these features.

d. Topographic Map using a two foot (2') contour interval.

e. Analysis Package

Composite Map
The various components of the suitability analysis shall be overlaid and as a result a composite opportunities and constraints map shall be prepared to support any proposed land uses.

Written Text
A summary of the existing site features and constraints and how the development of the site will occur in a manner which considers both the opportunities and constraints. The analysis must address mitigation for the site's physical constraints and

hazards.

D. Hillside Development Submittal Package

1. When Required: Before the submittal of a subdivision plat, a hillside development submittal package that conforms to the criteria of Section 14.1-4-602 and this Section of the Zoning Code must be approved. The subdivision plat may be submitted concurrently with the hillside development submittal package. If the property has been granted an exemption per Section 14.1-2-504.B. of this Zoning Code, then the development submittal package may be modified accordingly.

2. Submittal Requirements:

a. Master Facilities Plan

Objective: The nature of construction in hillside areas requires that street design, drainage facilities and utilities be reviewed in conjunction with the development plan. This additional level of review will help assure that the components of street construction in the hillside area overlay will reduce the amount of land disturbance and protect the public safety.

Components:

1) Preliminary design of all streets to include:
   a) Existing and proposed centerline grades; separate curbline grades if significantly different
   b) Vertical curve data; K values and design speed
   c) Intersection stationing

   Only minor street grade/elevation changes will be allowed between preliminary and final approved street plans. Allowed changes will be those which do not affect health, safety or welfare or cause significant terrain disturbance.
2) Drainage facilities and utilities to include telecommunications
3) Plan view of all structures. such as retaining walls
4) Typical street section for all proposed streets to include utility and drainage facilities
5) All off-street facilities/improvements including necessary easements
6) Preliminary Drainage Report, per Drainage Criteria Manual
7) Note for all Master Facility Plans and construction plans: Construction of gas and electric facilities in

twenty four (24') foot and twenty (20') foot street widths will necessitate installation prior to curb construction. Contractors will be required to stake curbs and finish grade to within six (6) inches of sub grade prior to gas and electric installation. Gas will not install steel lines of any size or plastic lines larger than four (4) inches in these twenty-four (24') foot and twenty (20') foot streets.

8) Note for all Master Facility Plans and construction plans: The Fire Department and Water Resources Department reserve their option to set requirements for access width, turning mechanisms, intermediate and terminal turnarounds and special features needed to achieve their operational requirements.

9) Note for all Master Facility Plans and construction plans: The order of construction shall be as follows:
   Wastewater
   Storm Sewer, if required
   Water
   Electric
   Telecommunications
   Gas

b. Land Suitability Analysis

A Land Suitability Analysis shall be submitted with the development submittal package. The map component of the Land Suitability Analysis shall be at the same scale as the development plan. Refer to Section C above for specific components of a Land Suitability Analysis.

c. Grading Plan, Erosion Control, Reclamation and Maintenance

Objective: The primary objective of the grading/erosion control/reclamation plan is to minimize terrain disturbance and to restore and stabilize those areas which are disturbed.

When Required: Plans for grading and control of erosion shall be submitted by the applicant with the development plan, development plan amendment, or replat, whichever is applicable, in any designated hillside area. No land so designated shall be subdivided, graded, otherwise disturbed for purposes of development, or any other purpose until the plan for grading and erosion control is approved by the Manager and the City Engineer.

Requirements: The grading plan shall meet all the requirements of Section 1503, Article 3, Chapter 15 of the City

Code. In addition, the grading plan shall show all areas to be disturbed by excavation and fill and shall show proposed final contours for these areas. The contour interval shall be two feet (2') and the horizontal scale 1" = 50' unless otherwise approved by the City Engineer. Street grades and elevations shown shall be in conformance with the preliminary street profiles.

The erosion control/reclamation plan or program shall state in detail how each type of restoration situation will be dealt with, recognizing that different combinations of slope and material may require varied stabilization methods. No cleared, graded or otherwise disturbed land may be left without temporary protective stabilizing cover longer than six (6) months or without permanent cover as described in the erosion control plan longer than one year from the date of disturbance. All necessary erosion control measures shall remain in place and be maintained until effective stabilization is achieved.

All grading plans prepared and submitted under this subsection shall include plans for limiting ecological damage through restrictions on the use of construction equipment and placement of supply and equipment storage areas and measures for drainage and erosion control to be employed during construction. Whenever possible and wherever appropriate, erosion control and restoration shall incorporate the use of live native plant materials. Criteria for treatment shall include visual compatibility with the surrounding landscape, sustained survivability under arid conditions and effectiveness in prevention of soil erosion and slope failure.

Obligation to Maintain: All facilities, vegetation and other items required by the approved grading, erosion control and reclamation plan shall be properly maintained by the owners of the property. Such maintenance shall include, but not be limited to keeping all erosion control facilities in good order and functional, repairing any erosion damage that occurs, keeping all vegetation healthy and in growing condition and replacing any dead vegetation as soon as practicable. This obligation to maintain shall not apply to individual lots except as the individual lots may be subject to maintenance obligations incurred under the approved grading, erosion control, and reclamation plan and except for obligations incurred on an approved Hillside Site Plan/Lot Grading Plan.

Revisions: Any proposed revisions to approved grading plans shall be submitted to the Division for review and shall be acted upon by the Manager and the City Engineer within ten working days of receipt. These revisions shall be in compliance with the

development plan.

Assurances: A letter of credit or surety bond shall be required to assure restoration of areas disturbed during grading of the overall development to install the roads, utilities, detention ponds, etc. Restoration shall be in accordance with the approved erosion control/reclamation plan. Submittal of this letter or bond is not required for final plat approval but is required prior to any land and/or vegetation disturbance or prior to issuance of any building permit, whichever occurs first.

d. Hillside Development Plan: In addition to the normal development plan submittal requirements, hillside development plans shall also include the following:

1) Building Lots: The proper location of building lots and the building envelopes within these lots are essential to the quality of hillside development. The overall layout of the building lots and the building envelopes should be drawn with consideration of the following factors:

- Lots and building envelopes should be located to preserve significant vegetation and features in preservation easements or common open space
- Lots and building envelopes should be located to allow significant variation in front and sideyard setbacks to avoid a repetitious appearance along the street frontage
- Slopes greater than twenty-five (25%) percent shall be avoided
- Street type and placement

The development plan shall demonstrate that each proposed building lot meets the following standards:

a) Adequate vehicular access to each individual building lot. Adequate access will be evaluated based upon:

- Driveways should follow the natural contour of the land. However, cut and/or fills for driveway construction will be considered on a case by case basis. Cut and fill slopes should be limited to four (4') feet in height and no more than two (2) four (4') foot tiers in total. There should be a minimum horizontal separation of four feet between each tier and the face of the retaining wall will be screened by vegetation. It is recognized that in some circumstances one retaining wall will allow the amount of land disturbance to vegetation removal to be minimized. In cases where it can be demonstrated that one retaining wall will be

beneficial, the maximum height shall be six (6') feet.

- A maximum slope of twenty (20%) percent for individual driveways and fifteen (15%) percent for a shared driveway. When the driveway serves as a required Fire Department access, the width shall be a minimum of twelve (12') feet and not greater than twelve (12%) percent grade.
- The amount of significant vegetation proposed to be removed.
- The driveway locations should be arranged in such a manner to facilitate emergency service response. On streets with less than twenty-eight (28') feet mat widths, driveways should be off-set to facilitate emergency response.
- Shared driveways, where appropriate, are encouraged as a method of reducing grading, paving and site disturbance.

b) Satisfactory location of individual utility service lines. The installation of individual utility service lines can cause removal of large quantities of natural vegetation. Service lines should be located to minimize disturbance of significant vegetation and natural features. The retention of the significant vegetation will be the main factor in the evaluation of the utility service lines location. A lot may not be approved if a satisfactory utility service line location cannot be agreed upon.

c) Retention of the significant vegetation on an individual building lot. On lots with significant vegetation the placement of the home should utilize this vegetation to soften structural mass and maintain vegetation. Special emphasis should be placed upon preserving significant natural vegetation within the front yard and streetscape areas.

d) Front and side yard setbacks should be sufficiently varied throughout the development to avoid a repetitious appearance along the street frontage.

e) Grading for the construction of the streets and utilities should be minimal.

f) Slopes greater than twenty-five (25%) percent shall not be included in the building envelope

2. Hillside Development Plan Review Criteria: In addition to the development plan review criteria listed in Section 14.1-4-602 of this Zoning Code, criteria for review of a development plan in a designated

hillside area shall include the following:

a. Does the plan meet the spirit and intent of the Hillside Design Manual?

b. How will the streetscape retain a hillside character after the street is constructed? Is terrain disturbance minimized?

The streetscape should reflect the natural setting of the development. The natural elements such as vegetation and rock features should be a major part of the streetscape. Removal of significant vegetation will be discouraged for construction of the streets, installation of utilities and construction of houses. It is however recognized that some amount of vegetation will be removed for development in hillside areas.

c. Have visual impacts upon off-site areas been reduced or reasonably mitigated?

Significant ridgelines and other prominent sites within the City should be given special consideration when a development plan is being prepared. Additional mitigation measures are necessary in these highly visible areas.

Mitigation measures that may be demonstrated on the development plan may include, but are not limited to:

1) Alternate siting of structures to include increased setbacks from ridgelines

2) Use of significant vegetation to soften structural mass when building sites are located in highly visible areas

3) Designation of special height restrictions

4) Use of native vegetative cover and retaining walls faced with stone or earth colored materials as stabilization measures for cuts and fills

5) Alternate street placement to reduce visibility of structures

d. Have the significant natural features and the significant vegetation been placed in Preservation Area easements?

Because of the terrain in hillside areas it is recognized that utilities and some drainage improvements may have to be

located within an easement. The review will consider the necessity of locating these facilities within the Preservation Area easement.

e. Have geologic, soil and other natural hazards been identified and evidence of mitigation techniques been provided?

Various natural hazards are encountered when developing in the hillside terrain. It is important to identify and begin the process of addressing the various mitigation techniques. A Geologic Hazards Study shall be provided as required by Article 3, Part 5, Geologic Hazard Study and Mitigation.

E. Wildfire Risk Mitigation

Wildfire risk reduction techniques shall include monitored smoke alarm systems, sprinkler systems, fire resistant roofing materials which are rated Class C or higher and fuels management measures. Within the Hillside Overlay fuel management measures shall be utilized within the safety zone of applicable new building construction. Fuels management is defined as the modification of the natural vegetation within the safety zone. Fuels management requirements, as set forth below, are intended to protect structures from wildfire as well as to reduce fire from spreading to the wildland. The safety zone is defined as the area within thirty (30') feet of the main structure or significant accessory structures, not to extend beyond the property line. As it is the City's desire to provide an environment safe from wildfire while maintaining the aesthetic qualities of the native hillside, the following wildfire risk reduction standards shall be required:

1. All development plans and subdivision plats within the Hillside Overlay Zone approved on or after April 1, 1993, and Hillside Site Plan/Lot Grading Plans shall contain the following disclosure statements:

   "Residing in or near wildland interface or intermix areas involves increased fire risks that may not apply in urban or more urbanized types of developed communities."

2. All development plans and subdivision plats within the Hillside Overlay Zone approved on or after April 1, 1993, and Hillside Site Plan/ Lot Grading Plans shall contain the following statement:

   "All lots within this development, are subject to fuels management requirements. It is the responsibility of the builder to implement the fuels management procedures as defined in Section 105 in Part 1 of Article

4 of Chapter 20 of the City Code for each lot. Approval inspection must be obtained from the City Zoning Administration office prior to Final inspection by the Building Department and/or allowing occupancy of the residence. The initial fuels management inspection must be requested from the City Zoning Administration office prior to framing inspection with subsequent approval obtained prior to building final."

3. All lots within the Hillside Overlay zone illustrated on development plans approved on or after April 1, 1993, shall be subject to the following fuels management requirements:

   a. Brush patches or clusters may be left in the safety zone, but shall be separated by clear areas of ten (10') feet or more of noncombustible materials or grass mown to not more than four (4) inches in height.

   b. No brush shall be allowed within ten (10') feet of the main structure. Exception: When approved by the Fire Marshall, or his designee, small brush patches, not exceeding one hundred (100') square feet in size and no more than fifteen (15') lineal feet in any direction, may be allowed to encroach this zone. This will be allowed upon the condition that the structure is protected with fire-resistant siding and small brush patches are not located within ten (10') feet of combustible decks, overhangs, or building openings.

   c. Large trees shall not have overlapping limbs and shall be pruned of dead limbs to a height of ten (10') feet above the ground. Tree clusters may be allowed if sufficient clear area is provided.

   d. Tree branches shall not exceed over or under the roof eaves and shall not be within fifteen (15') feet of a wood burning appliance chimney.

4. Homes upon lots within the Hillside Overlay zone illustrated on development plans approved on or after April 1, 1993, shall be required to install a monitored fire alarm system or a fire sprinkler system when the lot lies beyond one-thousand (1,000') feet along a cul-de-sac or lies beyond roadways with grades in excess of ten (10%) percent if roadways are the primary vehicular points of access to the home. Additionally, development plans which contain streets or lots which meet these criteria shall contain the following statement:

"A monitored fire alarm system or a fire sprinkler system is required for residences built upon the following lot(s):_____. The Colorado Springs Fire Department shall review all building plans, determine system requirements, and issue appropriate permits. A visual piping inspection must be secured through the Fire Department prior to requesting the framing inspection. Final inspection and approval of the system must be secured through the Fire Department prior to final inspection by the Building Department and/or occupancy of the residence."

5. After June 15, 1993, a minimum of a Class C roof covering shall be installed for all roofing and re-roofing applications of buildings located within Hillside Overlay Zone. Areas designated by the Fire Department as being low fire hazard shall be exempt from this requirement. A low fire hazard area is defined as an area of predominantly light fuels (grass, weeds and/or shrubs) and mild slopes (0-5%) and located not closer than five-hundred (500') feet to a wildland/urban interface or intermix area.

F. Hillside Building Height

Within the Hillside Overlay, the height of any building elevation shall be measured vertically from the building grade to the corresponding highest point of the roof, to include parapets and all ornamental features. Permitted heights are as follows:

1. For single-family uses the maximum height is thirty-five (35') feet for a sloping roof and thirty (30') feet for a flat roof. Height shall be determined at the time of zoning and development plan review and may be reduced based upon consideration of site factors including, but not limited to, visual analysis, topography, and proposed height relative to existing vegetation.

2. For multi-family uses, height shall be determined at the time of zoning and development plan review. Height will be based upon consideration of site factors including, but not limited to, visual analysis, topography, and proposed height relative to existing vegetation.

3. For nonresidential uses, maximum height is as permitted in the underlying zone, subject to final determination at the time of

zoning and development plan review. Height may be reduced based upon consideration of site factors including, but not limited to, visual analysis, topography, and proposed height relative to existing vegetation.

4. Existing single-family zoned lots with approved, unexpired development plans or subdivision plats approved prior to the adoption of this ordinance (_____), shall have a maximum permitted height of thirty-five (35') measured from the building grade to the corresponding highest point of the roof. In the event an approved development plan restricts building height to less than thirty (30') feet, the maximum height required by the development plan shall apply.

The major corners of the proposed structure are used to establish the control points with the building grade and from which the measurements are to be taken. Major corners are the points where the structure's walls change directions for distances of eight feet or more including attached garages and additions, but not including decks, patios, bay windows, chimneys or similar projections. This method creates a surface above the building grade of the major corners of the structure or building's footprint through which no portion of the structure may protrude. This method mirrors the site's building grade topography and defines a structure's maximum permitted hillside height.

G. Issuance of Building Permits.

No building permits shall be issued in any designated Hillside Area nor any grading or disturbance activity occur until such time as:

1. The development submittal package is approved, and

2. The final plat is recorded, and

3. Appropriate financial securities have been posted with the City Engineer to assure implementation of the approved Grading, Erosion Control and Reclamation Plan, and

4. A Hillside Site Plan/Lot Grading Plan which meets the submittal requirements and the criteria set forth in the Hillside Design Manual for the individual lot is approved by the Development Services Division.

H. Review of Hillside Site Plans/Lot Grading Plans:

No construction activity, including grading or removal of vegetation, shall occur on lots or parcels subject to the Hillside Overlay Zone until a Hillside Site Plan/Lot Grading Plan has been approved by the Development Services Division.

1. Content Requirements: The content requirements for a Hillside Site Plan/Lot Grading Plan shall be as set forth in the Hillside Design Manual.

2. Hillside Site Plan/Lot Grading Plans will be evaluated for consistency with the spirit and intent of the Hillside Design Manual, the approved development plan and in accordance with the following site design review criteria:

   a. Have the development standards of the zone or Development Plan (i.e., setbacks, maximum height, lot coverage, drive grades, access points etc.) been met?

   b. Is terrain disturbance minimized?
      1) Have cut and fills been minimized?
      1) Has the natural land form been retained?
      2) Have visually compatible stabilization measures been used for cut and fill slopes?
      3) Have natural features such as slopes and rock formations been incorporated into the site design?

   c. Is natural vegetation preserved and incorporated into the project design?
      1) Has emphasis been placed upon preserving scrub oak and pines within the front yard area as this has a major impact upon the appearance of the streetscape and the image and character of the neighborhood?
      2) Has emphasis been placed upon preserving healthy and significant stands of scrub oak and pine trees?

   d. Have visual impacts upon off-site areas been avoided or reasonably mitigated?
      1) Has the structure been sited so that there is a mountain or hillside backdrop?
      2) Has the structure been sited away from the ridgeline?
      3) Has existing vegetation been preserved to soften the structural mass of buildings located in highly visible areas?
      4) Has supplementary native landscaping been used to soften structural mass of highly visible building sites?
      (Note: The Hillside Design Manual should be consulted for further information on alternative site design techniques which can be utilized to comply with these Hillside Review Criteria)

3. Review Time: The Development Services Division shall respond to a proposed Hillside Site Plan/Lot Grading Plan within three (3) working days of receipt.

4. Appeals: The decision of the Development Services Division to

approve, approve with conditions or deny the Hillside Site Plan/Lot Grading Plan may be appealed to the Hearing Officer in accordance with Section 14.1-4-204.B.5.b of this Zoning Code.

5. Lots created prior to (Date): It is recognized it may not be possible for lots platted prior to the adoption of the Hillside standards enacted with Ord._____ to be developed in full compliance with all of the standards and guidelines of the Code. The Zoning Administrator will consider this factor when reviewing building permit requests for lots platted prior to (Date).

I. Illegal Land Disturbance, Grading and Vegetation Removal

1. All grading and vegetation removal, erosion control, restoration and maintenance within the Hillside Area Overlay shall be accomplished in accordance with the City approved Grading Erosion Control/Reclamation Plan and/or Hillside Site Plan/Lot Grading Plan and the provisions of this Part of this Zoning Code.

2. Non-compliance with approved Grading, Erosion Control/Reclamation Plan: Any over-lot, street, drainage, utility grading or other land disturbance performed which is not in compliance with the approved Hillside Grading and Erosion Control/Reclamation Plan and the provisions of this Part of this Zoning Code shall be deemed to be a violation of Section 15-3-1504 of the City Code. Any violation shall be enforced in accordance with the procedures set forth in Sections 15-3-1506 through 15-3-1529 of the City Code. If the City Engineer determines there is either imminent or existing erosion damage, drainage damage, dust pollution or other hazardous conditions for which immediate action is necessary, the City Engineer may cause corrective procedures to be undertaken and shall concurrently submit a Notice and Order to correct in accordance with the provisions of Section 15-3-1506 of the City Code.

3. Non-compliance with approved Hillside Site Plan/Lot Grading Plan: No grading or removal of vegetation shall occur on properties subject to the Hillside Overlay zone other than that authorized on the City approved Hillside Site Plan/Lot Grading Plan. Any grading or vegetation removal occurring on an individual lot or tract which does not comply with the City approved Hillside Site Plan shall be deemed to be a violation of this Code. The Zoning Administrator is authorized to pursue enforcement actions including, but not limited to, the issuance of a Notice and Order for illegal grading or vegetation removed in violation of the approved Hillside Site Plan/Lot Grading Plan in accordance with the procedures set forth in Sections 14.1-4-1101 through 14.1-4-1110 of this Code.

J. Appeals.

Except as provided in Part 2, Article 4 of this Zoning Code, appeals of any administrative action under the provision of this Section shall be made in accordance with Part 10, Article 4 of this Zoning Code; provided that whenever the City Engineer issues a Notice and Order to Correct under the authority of Subsection H.2., above, and pursuant to Section 1506, Article 3, Chapter 15 of the City Code, this Section shall not apply to any matters subject to this Notice and Order to Correct. Appeals of these matters shall proceed in accordance with Part 15, Article 3, Chapter 15 of the City Code and any appeal in process under this Section pertaining to these matters shall terminate.

Section 2. This ordinance shall be in full force and effect from and after its passage and publication as provided by the Charter.

Section 3. Council deems it appropriate that this ordinance be published by title and summary prepared by the City Clerk and that this ordinance shall be available for inspection and acquisition in the Office of the City Clerk.

Introduced, read, passed on first reading and ordered published this 14th day of May, 1996.

Mayor

ATTEST:

Kathryn M. Young

City Clerk

q:\office\96ordres\014.ord\jg\6
Massey May 1, 1996

Finally passed, adopted and approved this 28th day of May, 1996.

Mayor

ATTEST:

City Clerk

I HEREBY CERTIFY, that the foregoing ordinance entitled **"AN ORDINANCE REPEALING AND REORDAINING SECTION 504 (HS-HILLSIDE AREA OVERLAY) OF PART 5 (OVERLAY DISTRICTS) OF ARTICLE 2 (LAND USE ZONING DISTRICT) OF CHAPTER 14.1 (ZONING) OF THE CODE OF THE CITY OF COLORADO SPRINGS 1980, AS AMENDED TO PROVIDE AND CLARIFY REQUIREMENTS AND STANDARDS"** was introduced and read at a regular meeting of the City Council of the City of Colorado Springs, held on May 14, 1996; that said ordinance was passed at a regular meeting of the City Council of said City, held on the 28th day of May, 1996, and that the same was published by summary, in accordance with Section 3-80 of Article III of the Charter, in the Daily Transcript, a newspaper published and in general circulation in said City, at least ten days before its passage.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the City, this 28th day of May, 1996.

City Clerk

CITY ATTY'S OFFICE
CODE CHANGE REVIEW
ATTY INIT MHC
DATE 4/15/96
ADMIN INIT RC
DATE 4/15/96

ORDINANCE NO. 96-81

AN ORDINANCE AMENDING SECTION 201 (DEFINITIONS) OF PART 2 (DEFINITIONS) OF ARTICLE 1 (GENERAL PROVISIONS) OF CHAPTER 14.1 (ZONING) OF THE CODE OF THE CITY OF COLORADO SPRINGS 1980, AS AMENDED, TO ADD A NEW DEFINITIONS

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COLORADO SPRINGS:

Section 1. That Section 201 (Definitions) of Part 2 (Definitions) of Article 1 (General Provisions) of Chapter 14.1 (Zoning) of the Code of the City of Colorado Springs 1980, as amended, is hereby amended to add the following definitions:

14.1-1-201 DEFINITIONS

* * *

BUILDING GRADE: THE NATURAL ELEVATION OF THE GROUND SURFACE ON A LOT OR PARCEL PRIOR TO THE APPROVED DEVELOPMENT PLAN OR THE GROUND SURFACE CREATED IN ACCORDANCE WITH A GRADING AND DEVELOPMENT PLAN APPROVED BY THE CITY.

DOWN SLOPE LOT: A PARCEL OF LAND WHERE THE GENERAL TERRAIN OF THE LAND DECREASES IN ELEVATION AWAY FROM THE STREET FRONTAGE.

HILLSIDE BUILDING HEIGHT: WITHIN THE HILLSIDE OVERLAY THE HEIGHT OF ANY BUILDING ELEVATION SHALL BE MEASURED VERTICALLY FROM THE BUILDING GRADE TO THE CORRESPONDING HIGHEST POINT OF THE ROOF.

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Massey April 5, 1996

ITEM NO. 14

SIGNIFICANT NATURAL FEATURES: RIDGELINES, BLUFFS, ROCKOUTCROPPINGS, VIEW CORRIDORS, FOOTHILLS, MOUNTAIN BACKDROPS, UNIQUE VEGETATION, FLOODPLAINS, STREAMS, SURFACE WATER, NATURAL DRAINAGEWAYS, AND WILDLIFE HABITATS WHICH CONTRIBUTE TO THE ATTRACTIVENESS OF THE COMMUNITY.

SIGNIFICATION VEGETATION: VEGETATION THAT IS INDIGENOUS (PINE TREES, MOUNTAIN MAHOGANY, SCRUB OAK AND NATIVE GRASSES) AND THAT, THROUGH ITS LOCATION ON THE LOT AND/OR SIZE AND MATURITY WILL PRESERVE THE HILLSIDE CHARACTER.

UP SLOPE LOT: A PARCEL OF LAND WHERE THE GENERAL TERRAIN OF THE LAND INCREASES IN ELEVATION AWAY FROM THE STREET FRONTAGE.

Section 2. This ordinance shall be in full force and effect from and after its passage and publication as provided by the Charter.

Section 3. Council deems it appropriate that this ordinance be published by title and summary prepared by the City Clerk and that this ordinance shall be available for inspection and acquisition in the Office of the City Clerk.

Introduced, read, passed on first reading and ordered published this 14th day of May, 1996.

Mayor

ATTEST:

City Clerk

q:\office\96ordres\013\jg\2
Massey April 5, 1996

Finally passed, adopted and approved this 28th day of May, 1996.

Mayor

ATTEST:

City Clerk

I HEREBY CERTIFY, that the foregoing ordinance entitled **"AN ORDINANCE AMENDING SECTION 201 (DEFINITIONS) OF PART 2 (DEFINITIONS) OF ARTICLE 1 (GENERAL PROVISIONS) OF CHAPTER 14.1 (ZONING) OF THE CODE OF THE CITY OF COLORADO SPRINGS 1980, AS AMENDED, TO ADD A NEW DEFINITION"** was introduced and read at a regular meeting of the City Council of the City of Colorado Springs, held on May 14, 1996; that said ordinance was passed at a regular meeting of the City Council of said City, held on the 28th day of May, 1996, and that the same was published by summary, in accordance with Section 3-80 of Article III of the Charter, in the Daily Transcript, a newspaper published and in general circulation in said City, at least ten days before its passage.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the City, this 28th day of May, 1996.

City Clerk

RESOLUTION NO. 71-96

A RESOLUTION AMENDING THE CITY OF COLORADO SPRINGS TRAFFIC ENGINEERING POLICY AND DESIGN STANDARDS AND ASSOCIATED REVISIONS AND ADDITIONS TO THE SUBDIVISION POLICY MANUAL AND PUBLIC WORKS DESIGN MANUAL

WHEREAS, the City Council of Colorado Springs approved the Traffic Engineering Policy and Design Standards on January 9, 1990; and

WHEREAS, the Traffic Engineering Policy and Design Standards require certain revisions to existing sections in order to further define residential street rights-of-way, curb types, and sidewalk locations;

WHEREAS, the Traffic Engineering Policy and Design Standards contain technical traffic engineering standards and criteria which update and add to the current Subdivision Policy Manual and Public Works Design Manual; and

WHEREAS, the City of Colorado Springs will benefit from improved and consistent street design practices; and

WHEREAS, the City of Colorado Springs will benefit from improved traffic safety and traffic efficiency conditions;

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF COLORADO SPRINGS;

Section 1. That certain amendments to the Traffic Engineering Policy and Design Standards become a part of the City of Colorado Springs' Subdivision Policy Manual and Public

Works Design Manual.

Section 2. That the revisions to the Traffic Engineering Policy and Design Standards become a part of the Subdivision Policy Manual and Public Works Design Manual effective in use in all subdivisions and construction projects within the public jurisdiction for all plans submitted after April 1, 1992.

Dated at Colorado Springs, Colorado this 14th day of May, 1996.

Mayor

ATTEST:

City Clerk

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Massey April 8, 1996

STANDARDS FOR HILLSIDE RESIDENTIAL LANE

FUNCTION

Hillside residential lanes are designed to provide direct access to abutting residential properties in hillside areas where extreme topographic conditions exist. Due to design characteristics, no more than 20 dwellings may have access to this street. Waivers from these standards are prohibited.

RIGHT-OF-WAY WIDTH

40 feet, with five foot (5') utility and drainage easements on each side.

NUMBER OF MOVING LANES

Two lanes.

ACCESS CONDITIONS

A. Direct access to abutting properties is by way of curb cuts.

TRAFFIC CHARACTERISTICS

A. On-street parking is allowed on one side of the street.

B. Intersections are at grade whenever possible.

C. Maximum street leg length for traffic calming is 300-400 feet.

PLANNING CHARACTERISTICS

A. In order to maintain traffic safety and emergency access by facilitating off-street parking, a minimum of 100 feet lot frontage is strongly recommended. If less lot frontage per lot is proposed, the hillside development plan must demonstrate how additional accessible off-street parking can be provided.

B. The Fire Department and Water Resources Department reserve their option to set requirements for access width, turning mechanisms, intermediate and terminal turnarounds and special features needed to achieve their operational requirements.

C. Hillside streets should be designed to work with and not against the existing topography.

DESIGN CHARACTERISTICS

A. Grades

1. Not less than five-tenths of one percent (0.5%); nor more than ten percent (10%).

2. Grades between ten percent (10%) and twelve percent (12%) for a distance of no more than 250 feet.

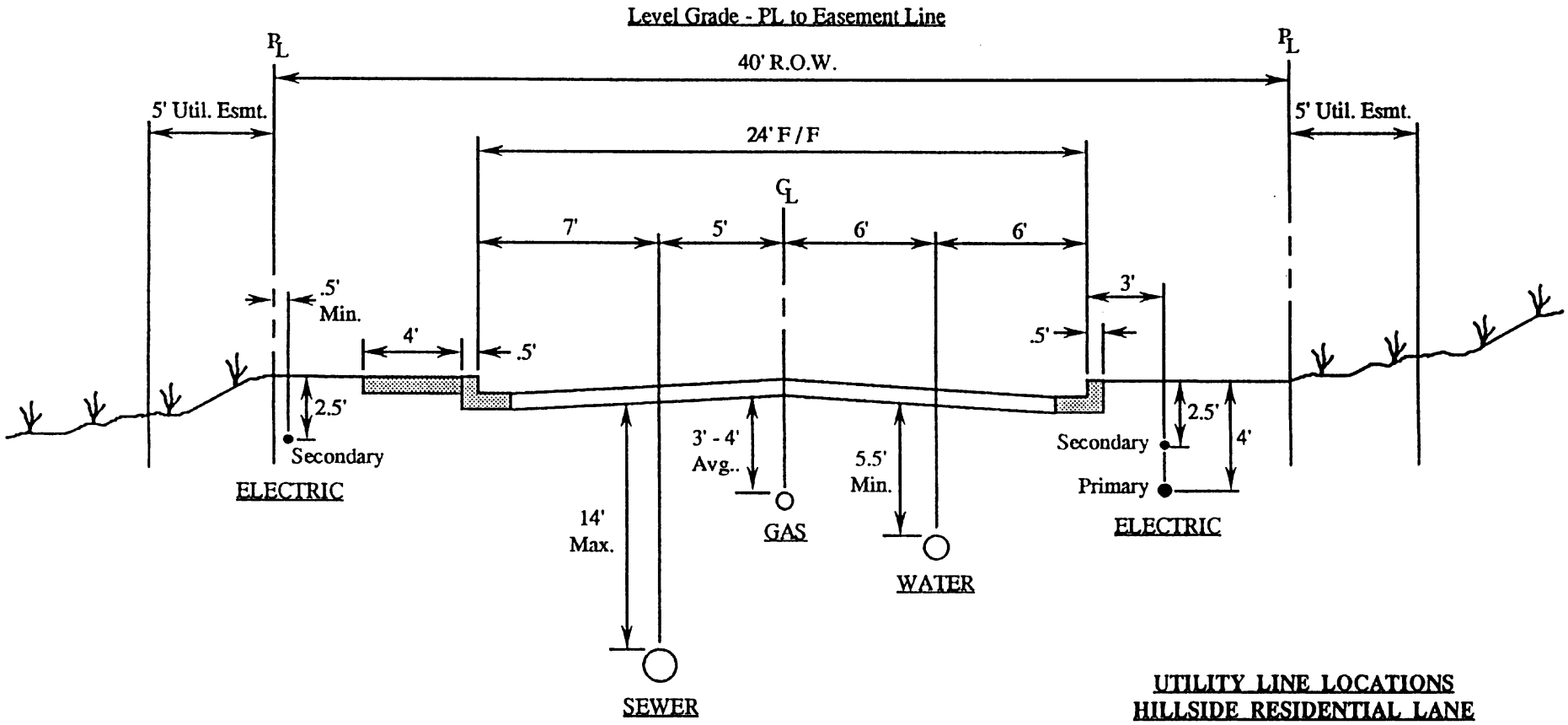
B. Alignment

1. Horizontal - 100 foot radius at centerline

2. Vertical - A minimum length equivalent to "K" value times the algebraic difference in the rate of grade.

Notes:

- No manholes will be allowed in a 24' wide pavement section.
- The Fire Department and Water Resources Department (Water and Wastewater Systems) reserve their option to set requirements for access width, turning mechanisms, intermediate and terminal turnarounds and special features needed to achieve their operational requirements.
- 20 Units or less.
- In general, grading will be confined to within the ROW. If easements require grading, revegetation shall be provided by the developer upon completion of utilities installation to restore the terrain.



UTILITY LINE LOCATIONS
HILLSIDE RESIDENTIAL LANE

Colorado Springs Utilities

UTILITY LINE LOCATIONS
40' R.O.W. STREET
(24' PAVEMENT WIDTH)
NTS

HILLSIDE ACCESS PLACE

FUNCTION

Hillside access places are designed to provide direct access to abutting residential properties in hillside areas where extreme topographic conditions exist. Due to design characteristics, no more than six (6) dwellings may have access to this street. No waivers from these standards are permitted.

RIGHT-OF-WAY WIDTH

40 feet, with 5 ft utility and drainage easements on each side.

NUMBER OF MOVING LANES

Two lanes

ACCESS CONDITIONS

A. Direct access to abutting properties is by way of curb cuts.

TRAFFIC CHARACTERISTICS

A. On street parking is prohibited.

B. Intersections are at grade whenever possible.

C. Maximum street leg length for traffic calming is 200-300 feet.

PLANNING CHARACTERISTICS

A. The Fire Department and Water Resources Department reserve their option to set requirements for access width, turning mechanisms, intermediate and terminal turnarounds and special features needed to achieve their operational requirements.

B. Alternatives to standard sidewalk design will be considered on an individual basis.

C. Hillside streets should be designed to work with and not against the existing topography.

DESIGN CHARACTERISTICS

A. Grades

1. Not less than five-tenths of one percent (0.5%); nor more than ten percent (10%).

2. Grades between ten percent (10%) and twelve percent (12%) for a distance of no more than 250 feet.

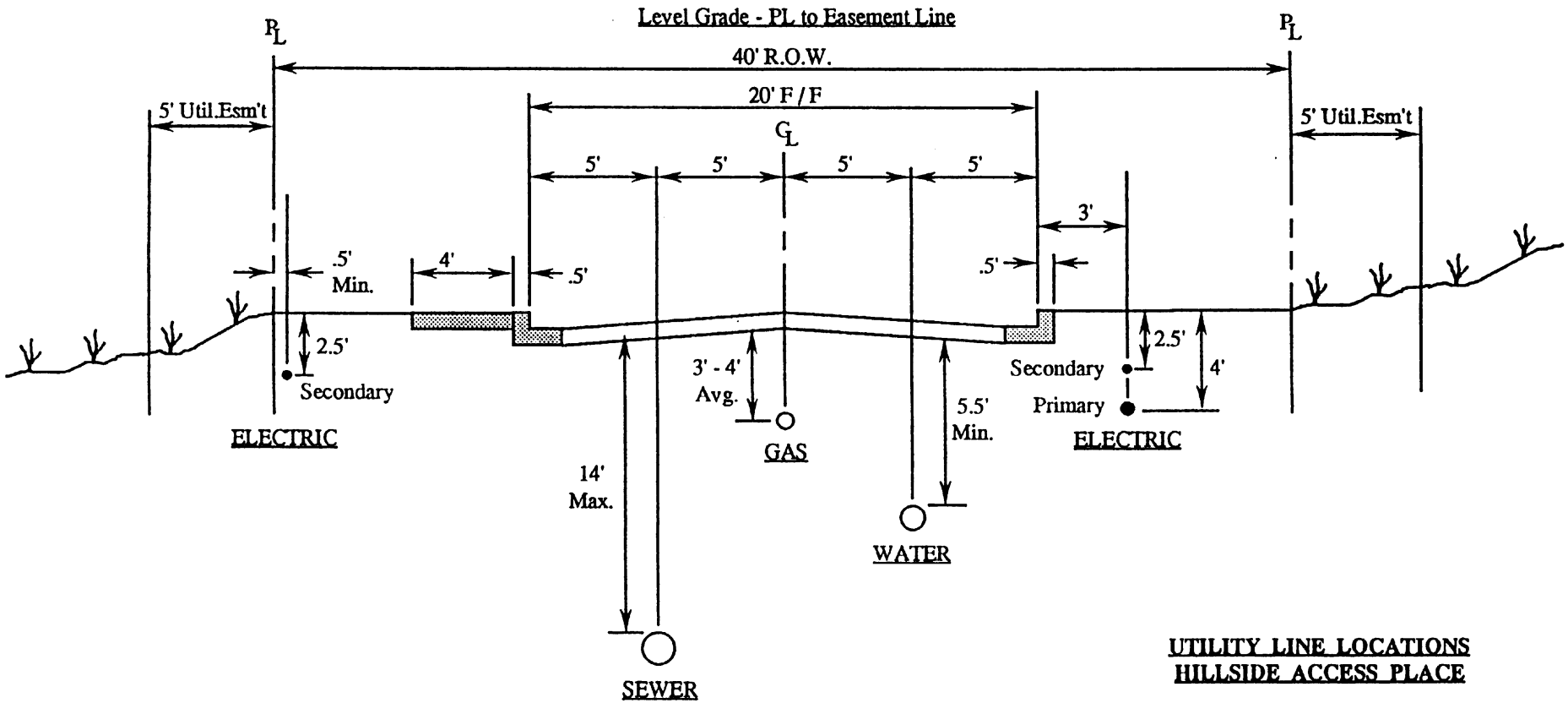
B. Alignment

1. Horizontal - 100 foot radius at centerline

2. Vertical - A minimum length equivalent to "K" value times the algebraic difference in the rate of grade.

Notes:

- No manholes will be allowed in a 20' wide pavement section.
- The Fire Department and Water Resources Department (Water and Wastewater Systems) reserve their option to set requirements for access width, turning mechanisms, intermediate and terminal turnarounds and special features needed to achieve their operational requirements.
- 5 Units or less.
- Alternatives to standard sidewalk design will be considered.
- In general, grading will be confined to within the ROW. If easements require grading, revegetation shall be provided by the developer upon completion of utilities installation to restore the terrain.



UTILITY LINE LOCATIONS
HILLSIDE ACCESS PLACE

Colorado Springs Utilities

UTILITY LINE LOCATIONS
40' R.O.W. STREET
(20' PAVEMENT WIDTH)
NTS

CITY ATTY'S OFFICE
CODE CHANGE REVIEW
ATTY INIT
DATE 4/15/96
ADMIN INIT
DATE 4/15/96

ORDINANCE NO. 96-82

AN ORDINANCE AMENDING SECTION 1203 (RELIEF) OF PART 12 (ADMINISTRATIVE RELIEF) OF ARTICLE 4 (ADMINISTRATION AND PROCEDURES) OF CHAPTER 14.1 (ZONING) OF THE CODE OF THE CITY OF COLORADO SPRINGS 1980, AS AMENDED, TO ADD A NEW SUBSECTION "D" RELATING TO BUILDING HEIGHTS

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF COLORADO SPRINGS:

Section 1. That Section 1203 (Relief) of Part 12 (Administrative Relief) of Article 4 (Administration and Procedures) of Chapter 14.1 (Zoning) of the Code of the City of Colorado Springs 1980, as amended, is hereby amended to read as follows:

14.1-4-1203 RELIEF

* * *

D. UP TO A FIVE (5) PERCENT INCREASE IN THE BUILDING HEIGHT IN A HILLSIDE AREA OVERLAY ZONE DISTRICT MAY BE GRANTED. IN CERTAIN CIRCUMSTANCES THE STRICT APPLICATION OF THE HILLSIDE HEIGHT LIMITATION MAY CREATE A SITUATION IN WHICH THE SITE DEVELOPMENT WOULD BE CONTRARY TO THE PURPOSE OF THE HILLSIDE AREA OVERLAY, AS SET FORTH IN SECTION 14.1-2-504 OF THIS ZONING CODE. ONE OF THE PRIMARY CONCERNS IN REVIEWING A HILLSIDE SITE PLAN/LOT GRADING PLAN IS HOW WELL THE PROPOSED STRUCTURE FITS THE SITE. THE ARCHITECTURAL DESIGN AND THE SITE PLAN

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Massey April 8, 1996

ITEM NO. 15

SHOULD BE SENSITIVE TO AND COMPATIBLE WITH THE NATURAL FEATURES OF THE SITE.

IF RELIEF TO THE HEIGHT REGULATIONS WOULD IMPROVE THE SITE AND/OR ARCHITECTURAL DESIGN, ADMINISTRATIVE RELIEF MAY BE GRANTED BASED UPON THE CRITERIA IN SECTIONS 14.1-4-1202 AND 14.1-4-1203 D. OF THIS ZONING CODE. IN ADDITION TO THESE CRITERIA, CONSIDERATION MAY ALSO BE GIVEN TO THE FOLLOWING FACTORS:

1. VEGETATION. THE GRANTING OF ADMINISTRATIVE RELIEF WOULD HELP MINIMIZE GRADING AND REDUCE VEGETATION REMOVAL.

2. SITE TOPOGRAPHY. THE GRANTING OF ADMINISTRATIVE RELIEF WOULD AVOID UNNECESSARY SITE DISTURBANCE OR MINIMIZE GRADING.

3. VISIBILITY OF THE STRUCTURE. THE GRANTING OF ADMINISTRATIVE RELIEF WOULD ALLOW THE PROPOSED BUILDING LOCATION AND EXISTING VEGETATION ON THE SITE TO RESTRICT VISIBILITY OF THE ADDITIONAL HEIGHT FROM A DISTANCE, FROM THE STREET OR FROM DOWNHILL PROPERTIES.

4. ARCHITECTURAL FEATURES. THE GRANTING OF ADMINISTRATIVE RELIEF WOULD ALLOW FOR BUILDING DESIGN SUCH AS SPLIT PADS, STEPPED FOOTINGS, BELOW GRADE ROOMS AND ROOF FORMS PITCHED TO FOLLOW THE SLOPE.

Section 2. This ordinance shall be in full force and effect from and after its passage and publication as provided by the Charter.

Section 3. Council deems it appropriate that this ordinance be published by title and summary prepared by the City Clerk and that this ordinance shall be available for inspection and acquisition in the Office of the City Clerk.

Introduced, read, passed on first reading and ordered published this 14th day of May, 1996.

Mayor

ATTEST:

City Clerk

q:\office\96ordres\012\jg\1
Massey April 8, 1996

Finally passed, adopted and approved this 28th day of May, 1996.

Mayor

ATTEST:

City Clerk

I HEREBY CERTIFY, that the foregoing ordinance entitled **"AN ORDINANCE AMENDING SECTION 1203 (RELIEF) OF PART 12 (ADMINISTRATIVE RELIEF) OF ARTICLE 4 (ADMINISTRATION AND PROCEDURES) OF CHAPTER 14.1 (ZONING) OF THE CODE OF THE CITY OF COLORADO SPRINGS 1980, AS AMENDED, TO ADD A NEW SUBSECTION "D" RELATING TO BUILDING HEIGHTS"**

was introduced and read at a regular meeting of the City Council of the City of Colorado Springs, held on May 14, 1996; that said ordinance was passed at a regular meeting of the City Council of said City, held on the 28th day of May, 1996, and that the same was published by summary, in accordance with Section 3-80 of Article III of the Charter, in the Daily Transcript, a newspaper published and in general circulation in said City, at least ten days before its passage.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the City, this 28th day of May, 1996.

City Clerk

APPENDIX

APPENDIX B. HILLSIDE BUILDING HEIGHT PHASE-IN POLICY

PLANNING, DEVELOPMENT AND FINANCE
Development Services and
Comprehensive Planning Division

CITY OF COLORADO SPRINGS

DATE: May 22, 1996

TO: Paul Tice, Zoning Administrator

FROM: Ira Joseph, Comprehensive Planning Section Manager

SUBJECT: Hillside Building Height Phase-In

The purpose of this memo is to clarify the phase-in of the new building height methodology for site plans and building permits. This phase-in was not included in the ordinance, but will be applied as a policy. All new lots created after the effective date (6/7/96) of the ordinance will be required to comply with the new methodology and numbers. For pre-existing lots with approved development plans, the following phase-in was developed:

1. For six months (until 12/7/96), all pre-existing lots are exempted from both the new methodology and the new height number; building height can be calculated as average height from finished grade using the height definition in the code.

2. Between approximately 12/7/96 and 6/7/97, structures on pre-existing lots must not exceed 35 feet from building grade to the highest roof point; applicants may apply for an administrative waiver of up to 10 percent during this time. The new criteria for administrative waivers in hillside areas should be used to evaluate those requests. There is no automatic approval implied.

3. One year after the effective date of the ordinance, all structures proposed on pre-existing lots may not exceed 35 feet from building grade to the highest roof point.

As a practical matter, if a development plan expires, I would think that the new plan would be required to comply fully with the new Code.

Please let me know if you require additional clarification on this matter.

c: Quinn Peitz, Land Development Review Manager

RECEIVED
MAY 22 1996
CITY ZONING
ADMINISTRATION

30 S. Nevada Ave., Suite 301/305 • TEL 719-578-6692 FAX 719-578-6303
Mailing Address: Post Office Box 1575, Mail Code 310 • Colorado Springs, Colorado 80901-1575

APPENDIX

APPENDIX C. HILLSIDE SITE / LOT GRADING PLAN CHECKLIST

HILLSIDE SITE / LOT GRADING PLAN SUBMITTAL CHECKLIST

This application form sets forth the content and format of a Hillside Site / Lot Grading Plan. Plans will be complete when all of the applicable information has been provided. An incomplete or incorrect submittal will cause a delay in review.

All Plans shall be drawn at the minimum scale of One inch is equal to Twenty feet (1" = 20') and minimum contour interval of two (2) feet. The contour information shall be based upon a survey or "FIMS" data and shall meet "National Map Accuracy Standards".

Site Address: _____ Applicant: _____
Telephone: _____

Applicant's Certification Statement: I, _____, as Applicant and duly representative of the owner, hereby certify that the information included upon the attached Hillside Site / Lot Grading Plan is true and accurate; and that the development of the site will occur in accordance with the Plan.

_____ _____
Signature Date

Approval Statement: The attached Hillside Site / Lot Grading Plan has been reviewed by the Development Review Unit of City Planning office and finds that the plan is hereby:

❒ **APPROVED**, and the Applicant is permitted to proceed to secure other required permits.

❒ **APPROVED, SUBJECT TO** the following conditions, and the Applicant is permitted to proceed to secure other required permits:

_____
_____
_____

❒ **DENIED**, based upon the following reasons:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

_____ _____
City Staff Date

If you have questions, please call the Development Review Unit of City Planning at 385-5982.

The Hillside Site / Lot Grading Plan shall include the following information:

APPLICANT		REVIEWER
_____	1.) Property owner's name, address and telephone number;	_____
_____	2.) Applicant's name, address and telephone number;	_____
_____	3.) Land Planner 's name, address and telephone number;	_____
_____	4.) Land Surveyor's name, address and telephone number:	_____
_____	5.) Indication of the scale (numeric and bar) (minimum acceptable scale is 1" = 20');	_____
_____	6.) North arrow;	_____
_____	7.) Vicinity map;	_____
_____	8.) Legal description;	_____
_____	9.) A Legend, which includes the following required information;	_____
_____	A.) Site address,	_____
_____	B.) Project name,	_____
_____	C.) Tax schedule number,	_____
_____	E.) Zoning district classification,	_____
_____	F.) Development plan name and number,	_____
_____	G.) Size of the area of property,	_____
_____	H.) Total square footage of all existing & proposed structure's footprints, including percent of lot coverage	_____
_____	I.) Total square footage of all existing & proposed structures	_____
_____	J.) Calculated maximum height of all existing, proposed, and/or expanded structures,	_____
_____	K.) The following applicable "Hillside Protection Notes":	
_____	Note 1: No disturbance, grading or significant natural, features and vegetation removal will occur beyond the "Limit of Disturbance" line, as shown on this plan.	_____
_____	Note 2: The "Limit of Disturbance" line shall be delineated during construction with flags, roping and/or 4' tall orange construction fencing.	_____
_____	10.) Property lines location and dimensions;	_____

The Hillside Site / Lot Grading Plan shall include the following information:

APPLICANT		REVIEWER
_____	11.) All existing and proposed public and private easements, "no build" areas, common areas, and preservation areas, indicating their type, location and dimensions;	_____
_____	12.) Distance of all existing, new, and/or expansions of structures, including retaining walls and fences, to property lines;	_____
_____	13.) Location and dimensions of predetermined building envelopes, as shown on the Hillside Development Plan, if applicable;	_____
_____	14.) Location and dimensions of the area designated as the "Limit of Disturbance";	_____
_____	15.) Location, dimensions, type, height of existing & proposed structures;	_____
_____	16.) Location, dimensions, type, height, of all existing and proposed retaining walls;	_____
_____	17.) Location, grade, surface, curb cut, and size of driveway(s);	_____
_____	18.) Location, name, and size of all adjacent street and alley right-of-ways;	_____
_____	19.) Location and extent of all existing and proposed sidewalk, walkway, street and alley improvements to center line, including: paved surfaces, curb and gutter, curb cuts and ramps, and other improvements;	_____
_____	20.) Location and type of all private proposed utility service lines, including: water, sewer, electricity, gas, telephone and catv;	_____
_____	21.) Location and type of all existing public utilities, including: water, sewer, electricity, gas, telephone and catv equipment and systems;	_____
_____	22.) Location, type, and general information regarding existing and proposed drainage patterns, and the improvements and methods to be used to channel flows into the public system;	_____
_____	23.) Indicate existing building grade and proposed finished grade topography at a minimum of two (2) feet contour intervals, locate an existing permanent fixed benchmark and a visual foundation benchmark with elevations identified;	_____
_____	24.) Illustrate the building and finished grade adjacent to each of the major corners.	_____
_____	25.) Indicate the location, size, and type of all existing significant natural features, including: excessive slopes of 25% or greater, ridgelines, bluffs, rock formations, vegetation; natural streams and drainageways, and limiting natural and geologic condition;	_____
_____	26.) Indicate all proposed significant natural features that will be protected during construction, preserved after construction, and all of the natural features that will be removed;	_____

The Hillside Site / Lot Grading Plan shall include the following information:

APPLICANT		REVIEWER
_____	27.) Indicate the location, size, and type of all proposed new landscaping;	_____
_____	28.) Indicate the temporary and permanent methods to be used to stabilize and prevent the erosion of soils;	_____
_____	29.) Indicate the area in which all equipment and material, including soil, will be stored and stockpiled;	_____
_____	30.) For Plan amendments, clearly delineate and indicate the area proposed for amendment by highlighting and/or outlining the changes.	_____

A Hillside Building Elevation Drawing shall be attached as part of the Plan and shall contain the following information:

APPLICANT		REVIEWER
_____	1.) The structure's front, rear, right, and left side profiles shall be shown. The preferred drawing scale should be 1/4 inch is equal to one foot.	_____
_____	2.) Identify the major corners on each side profile. From the site plan transfer, mark, and record the elevation where the structure intersects the building grade surface.	_____
_____	3.) Show the building (existing)grade and finished grades for each side profile with a horizontal line.	_____
_____	4.) From the major corners building grade intersection mark, measure vertically thirty-five (35) for a sloped roof or thirty (30) scaled feet for a flat roof and identify and mark the maximum hillside building height. Connect the maximum hillside building height control points for each side profile with a horizontal line.	_____

Applicant's additional information, notes, and comments:

_____

_____

_____

_____

_____

_____

_____

_____

_____

APPENDIX

APPENDIX D. HILLSIDE SITE / LOT GRADING PLAN CHECKLIST FOR DECKS, ADDITIONS, VEGETATION OR GRADING MODIFICATIONS

HILLSIDE SITE / LOT GRADING PLAN SUBMITTAL CHECKLIST FOR DECKS, SMALL ADDITIONS, VEGETATION OR GRADING MODIFICATIONS

This application form sets forth the content and format of a Hillside Site / Lot Grading Plan. Plans will be complete when all of the applicable information has been provided. An incomplete or incorrect submittal will cause a delay in review.

All Plans shall be drawn at the minimum scale of One inch is equal to Twenty feet (1" = 20') and minimum contour interval of two (2) feet. The contour information shall be based upon a survey or "FIMS" data and shall meet "National Map Accuracy Standards".

Site Address: _____ Applicant: _____
Telephone: _____

Applicant's Certification Statement: I, _____, as Applicant and duly representative of the owner, hereby certify that the information included upon the attached Hillside Site / Lot Grading Plan is true and accurate; and that the development of the site will occur in accordance with the Plan.

_____ _____
Signature Date

Approval Statement: The attached Hillside Site / Lot Grading Plan has been reviewed by the Development Review Unit of City Planning office and finds that the plan is hereby:

❒ **APPROVED**, and the Applicant is permitted to proceed to secure other required permits.

❒ **APPROVED, SUBJECT TO** the following conditions, and the Applicant is permitted to proceed to secure other required permits:

_____
_____
_____

❒ **DENIED**, based upon the following reasons:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

_____ _____
City Staff Date

If you have questions, please call the Development Review Unit of City Planning at 385-5982.

The Hillside Site / Lot Grading Plan shall include the following information:

APPLICANT		REVIEWER
_____	1.) Property owner's name, address and telephone number;	_____
_____	2.) Applicant's name, address and telephone number;	_____
_____	3) Indication of the scale (numeric and bar) (minimum acceptable scale is 1" = 20');	_____
_____	4.) North arrow;	_____
_____	5.) Legal description;	_____
_____	6.) A Legend, which includes the following required information;	_____
_____	A.) Site address,	_____
_____	B.) Project name,	_____
_____	C.) Tax schedule number,	_____
_____	E.) Zoning district classification,	_____
_____	F.) Development plan name and number,	_____
_____	G.) Size of the area of property,	_____
_____	H.) Total square footage of all existing & proposed structure's footprints, including percent of lot coverage	_____
_____	I.) Total square footage of all existing & proposed structures	_____
_____	J.) Calculated maximum height of all existing, proposed, and/or expanded structures,	_____
_____	K.) The following applicable "Hillside Protection Notes":	
_____	Note 1: No disturbance, grading or significant natural, features and vegetation removal will occur beyond the "Limit of Disturbance" line, as shown on this plan.	_____
_____	Note 2: The "Limit of Disturbance" line shall be delineated during construction with flags, roping and/or 4' tall orange construction fencing.	_____
_____	7.) Property lines location and dimensions;	_____
_____	8.) All existing and proposed public and private easements, "no build" areas, common areas, and preservation areas, indicating their type, location and dimensions;	_____
_____	9.) Distance of all existing, new, and/or expansions of structures, including retaining walls and fences, to property lines;	_____
_____	10.) Location and dimensions of predetermined building envelopes, as shown on the Hillside Development Plan, if applicable;	_____
_____	11.) Location, dimensions, type, height of existing & proposed structures;	_____

The Hillside Site / Lot Grading Plan shall include the following information:

APPLICANT		REVIEWER
_____	12.) Location and dimensions of the area designated as the "Limit of Disturbance";	_____
_____	13.) Illustrate the building and finished grade adjacent to each of the major corners.	_____
_____	14.) Indicate the location, size, and type of all existing significant natural features, including: excessive slopes of 25% or greater, ridgelines, bluffs, rock formations, vegetation; natural streams and drainageways, and limiting natural and geologic condition;	_____
_____	15.) Indicate all proposed significant natural features that will be protected during construction, preserved after construction, and all of the natural features that will be removed;	_____
_____	16.) For Plan amendments, clearly delineate and indicate the area proposed for amendment by highlighting and/or outlining the changes.	_____

A Hillside Building Elevation Drawing shall be attached as part of the Plan and shall contain the following information:

APPLICANT		REVIEWER
_____	1.) The structure's front, rear, right, and left side profiles shall be shown. The preferred drawing scale should be 1/4 inch is equal to one foot.	_____
_____	2.) Identify the major corners on each side profile. From the site plan transfer, mark, and record the elevation where the structure intersects the building grade surface.	_____
_____	3.) Show the building (existing)grade and finished grades for each side profile with a horizontal line.	_____
_____	4.) From the major corners building grade intersection mark, measure vertically thirty-five (35) for a sloped roof or thirty (30) scaled feet for a flat roof and identify and mark the maximum hillside building height. Connect the maximum hillside building height control points for each side profile with a horizontal line.	_____

Applicant's additional information, notes, and comments:

_____

_____

_____

_____

_____

_____

_____

APPENDIX

APPENDIX E. SITE INVENTORY FEATURE CHECKLIST

SITE INVENTORY CHECKLIST

	NOT APPLICABLE	CONSTRAINTS	MITIGATIONS	OPPORTUNITIES	ENHANCEMENTS	REMARKS
NATURE FEATURES						
TOPOGRAPHY						
Elevation						
High Point						
Low Point						
Contours						
Slope						
Orientation						
Unique Features						
Hazards						
MICRO CLIMATE						
Solar Radiation						
Ventilation						
Wind Direction						
Vegetation Influence						
Slope Orientation						
Unique Features						
Hazards						
VEGETATION						
Type						
Extent						
Screening						
Buffering						
Erosion Control						
Slope Stabilization						
Preservation Area						
Fuels Management						
Unique Species						
Hazards						
WILDLIFE						
Value						
Habitat						
Corridor						
Unique Species						

SITE INVENTORY CHECKLIST

	NOT APPLICABLE	CONSTRAINTS	MITIGATIONS	OPPORTUNITIES	ENHANCEMENTS	REMARKS
SENSITIVE & SIGNIFICANT LANDS						
Visibility						
Scenic Vistas						
Landforms						
Surface Waters						
Eco-Systems						
Unique Features						
Hazards						
GEOLOGY						
Landform Location						
Surface Materials						
Depth to Bedrock						
Seismicity						
Unique Features						
Hazards						
HYDROLOGY						
Surface Waters						
Drainage Patterns						
Aquifer Recharge						
Water Quality						
Floodplain						
Unique Features						
Hazards						
SOILS						
Types						
Characteristics						
Suitability						
Erosion						
Depth to Water Table						
Limitations						
Unique Features						
Hazards						

SITE INVENTORY CHECKLIST

	NOT APPLICABLE	CONSTRAINTS	MITIGATIONS	OPPORTUNITIES	ENHANCEMENTS	REMARKS
FACILITIES AND SERVICES						
Water						
Wastewater						
Streets						
Drainage						
Fire Protection						
Electricity						
Gas						
Telephone						
Catv						
Tele-Communication						
ACCESS						
Driveway						
Utilities						
LAND USE						
Proposed						
Vicinity						
Compatibility						
Controversy						
OTHER FEATURES						

APPENDIX F. SUGGESTED LANDSCAPE SELECTIONS FOR HILLSIDE AREAS

SUGGESTED LANDSCAPE SELECTIONS FOR HILLSIDE AREAS

NAME	FEATURES	SPREAD	HEIGHT	COMMENTS
LARGE DECIDUOUS TREES				
Ash, Green	✤ ✹	30'	50'	Seedless var. many varieties, currently over planted
Ash, Marshall's		40'	50'	
Ash, Patmore	✤	40'	50'	
Ash, Summit	✤	30"	50'	
Ash, White		30"	50'	Autumn Purple Ash most common
Cottonwood, Northwest	✦ ✧	40'	50'	Native in stream beds (hardy), cottonless variety
Elm, American		40'	50'	
Elm, English		40'	50'	Beautiful tree, not readily available
Elm, Hybrid		35'	50'	Homestead Lincoln, Regal, Sapporo
Elm, Siberian		40'	50'	Volunteer tree
European Beech		30"	50'	Beautiful specimen tree
Linden, American		50'	50'	Drops seeds
Linden, Redmond		40'	40'	Fragrant flowers, reddish bark in winter
Linden, Silverleaf		30'	50'	Late leaf fall
Hackberry	✤ ✹ ✦ ✧	30'	50'	Gall psyliid food for migrating birds
Honeylocust, Imperial		40'	40'	Thornless and seedless
Honeylocust, Shademaster	✤	50'	50'	Thornless and seedless
Honeylocust, Skyline	✤	40'	45'	Thornless and seedless
Honeylocust, Thornless	✤	40'	50"	Many varieties
Japanese Zelkova		40'	50'	Has berries
London Plane Tree		40'	50'	Better than American Sycamore
Maple, Norway		40'	50'	Many varieties
Maple, Schwedler		40'	50'	Large reddish-purple spring leaves
Maple, Silver		35'	50'	Decays when old
Oak, Bur	✤	40'	50'	Good drought tolerant tree
Oak, Chestnut		40'	50'	Not readily available
Oak, English	✤	40'	50'	Fastigate variety
Oak, Northern Red		40'	50'	Late leaf fall
Oak, Swamp White		40'	50'	Tolerates poor drainage
Oak, White		40'	50'	Late leaf fall
Poplar, Lombardy	✹	10'	50'	Often used as a hedgerow
Poplar, Silver	✹	40'	50'	Bolleana-columnar variety
Sycamore American		50'	50'	Drops twigs and fruit
Walnut, Black	✤	40'	50'	Difficult to transplant, wildlife
Western Larch		30'	50'	Deciduous conifer
Yellowwood		30'	30'	Sensitive to hand, seed litter
MEDIUM DECIDUOUS TREES				
Ginkgo	✤	30'	30'	Plant male tree only
Honeylocust, Sunburst	✤	35'	45'	Light green new leaves tipped with gold
Horsechestnut		25'	50'	Slow to establish
Kentucky Coffee Tree	✤	30'	30'	Leafs out late
Linden, Crimean		25'	45'	Hard nut-like fruit, seed litter
Linden, Greenspire		30'	45'	Fragrant flowers; narrow oval growth habit
Linden, Littleleaf		20'	45'	Heavy glossy foliage; fragrant creamy-white

NAME	FEATURES	SPREAD	HEIGHT	COMMENTS
				flowers
Locust, Black		30'	50'	Serious borer problem
Maple, Norway Colunmar		25'	50'	Compact, narrow growth habit
Ohio Buckeye		20'	35'	Large leaves; seed litter
Western Catalpa	✤	25'	50'	Leafs out late
Willow		40'	50'	Many species
Yellow Buckeye		30'	40'	Prefers moist soil; seed litter
SMALL DECIDUOUS TREES				
Amur Chokecherry	✤	15'	<30'	Don't over water
Amur Corktree	✤	20'	<30'	Fruit litter
Apricot	✤	20'	<30'	Pink Spring flowers; dense, bushy tree w/orange full color
Ash, European Mountain		20'	<30'	Colorful ornamental
Ash, Singleleaf	✤	10'	<30'	
Ash, Wafer (Hop Tree)		10'	<30'	Native to southwest Colorado
Aspen, Quaking	✹	15'	60'	Reproduces from roots
Canada Red Cherry	✤	15'	<30'	Fragrant white flowers and red cherries
Cherry, Mont. Sour	✤	10'	<30'	
Crabapple		15'	<30'	Choose disease resistant varieties (Malus; "Adams", "Centurian", "Zelkirk", "Henningi", "Indian Summer", "Ralph Shay")
Goldenrain Tree	✤ ✹	20'	<30'	Decorative Seed Pods
Hawthorn (many var.)	✤ ✦ ✧	15'	<30'	Many varieties
Japanese Tree Lilac	✤	15'	<30'	White flowers
Maple, Amur	✤	15'	<30'	Multi-stem common
Maple, Hedge	✤	20'	<30'	
Maple, Tatarian	✤	10'	<30'	Samara red in summer
May Day Tree		15'	<30'	
Oak, Scrub (Gambel)	✤	15'	<30'	Don't over water, native to foothills, extremely hardy
Olive, Russian	✤ ✦ ✧	20'	<30'	Drought tolerant, invades drainage areas
Pear, Bradford		18'	<30'	White flowers; maintains shape w/little maintenance
Pear, Callery	✤	15'	<30'	
Pear, Ussurian	✤	20'	<30'	
Plum, Native	✤ ✦ ✧	15'	<30'	
Plum, Double Flowering	✤	8'	12'	Double pink flowers; prefers rich, moist soil
Plum, Newport	✤	15'	<30'	
Serviceberry	✤	20'	<30'	White flowers, berries, very hardy
Sumac, Smooth	✤	10'	<30'	
Sumac, Staghorn	✤	15'	<30'	
Turkish Filbert	✤	20'	<30'	
LARGE CONIFER TREES				
Fir, Douglas		20'	50'	Does well on shady sites
Fir, White		25'	50'	Nice landscape tree
Pine, Austrian	✤	25'	50'	More tolerant of urban sites than Ponderosas
Spruce, Blue	✦ ✧	25'	50'	Beautiful landscape tree
Spruce, Engelmann		25'	50'	High elevation tree
MEDIUM CONIFER TREES				
Pine, Limber		25'	50'	Light bluish-green, twisted needles

NAME	FEATURES	SPREAD	HEIGHT	COMMENTS
Pine, Lodgepole		25'	50'	High elevation trees
Pine, Ponderosa	✤ ✦ ✧	25'	50'	Native to foothills
Pine, Scotch		30'	50'	Fast growth rate, good screening

SMALL CONIFER TREES				
Juniper, Rocky Mountain	✤ ✦ ✧	15'	<30'	Native to foothills
Juniper, Upright		15'	<30'	Many varieties
Pine, Bristlecone	✤	15'	<30'	Dense, bushy branches
Pine, Pinon	✤	15'	<30'	Don't overwater, edible seed
EVERGREEN SHRUBS AND GROUNDCOVERS				
Creeping Mahonia AKA Oregon Grape Holly	✤ ✹		6"-12"	Hard to establish, reddish in winter
Bar Harbor Juniper	✤		6"-8"	Soft blue foliage in summer
Blue Chip Juniper	✤		8"-10"	Blue slate foliage
Blue creeping Juniper	✤		18"-24"	Spreading or mounded form
Buffalo Juniper	✤		12"-18"	True spreader, bright olive green foliage
Common Mountain Juniper	✤		2'-4'	Native low spreading juniper
Hughes Juniper	✤		12"-18"	Turns light purple in winter
Tammy Juniper	✤		2'-4'	Hardy, dense, soft dark green foliage
Mugo Pine	✤		varies	Mushroom shaped, large shrub or small tree
Penstemon, Pine-leaf	✤		6"-8'	Pink orange or red flowers
Penstemon, Needle-leaf	✤		2"-6"	Vivid dark blue flowers, bluish green foliage
Pfitzer Juniper	✤		varies	Many forms
LOW WATER DECIDUOUS SHRUBS				
Barberry, Korean	✤	2'	1'	Purple leafed, thorny
Buffaolberry, Silver	✤	8'-12'	6'-8'	Need male and female for fruit
Burning Bush	✤	6'-8'	6'-8'	Crimson fall color
Cherry, Nanking	✤ ✹		8'-20'	Hardy, edible fruit. Can be trained as a tree
Cherry, Sand	✤ ✹ ✦ ✧	4'-5'	3'-4'	Native, edible fruit, likes sandy soil
Coral Berry/Indian Currant	✤ ✦ ✧	3'-4'	4'-6'	Native, loose shape
Cotoneaster	✤ ✹ ✦ ✧	varies	varies	Good choice, many varieties
Currant, Alpine	✤ ✹	5'	3'	Dark glossy green
Elderberry, Blue	✤	6'-10'	10'-15'	Hardy, edible fruit
Gooseberry, Slender	✤	3'	4'	Erect habit, edible fruit
Lilac (Common, Late, Persian)	✤ ✹ ✦	10'	15'	Mulch delays bloom
Maple, Rocky Mountain	✤	10'	20'	Multi-stemmed, good color
Mountain Mahogany	✤ ✦ ✧	15'	10'	Hardy upright
Ninebark	✤	4'	6'	Fall color, shedding bark
Peashrub	✤	varies	varies	Upright habit, very hardy, small yellow flowers
Potentilla	✤ ✹ ✦ ✧	varies	varies	Many varieties. Yellow and white blooms
Privet New Mexico	✤	8'-10	8'-10'	Native, very low water, early bloom
Rabbit Brush	✤ ✦ ✧	3'	4'	Many varieties, blue color
Rose, Austrian Copper	✤	4'	5'	Bright red and yellow flowers
Rose, Shrub	✤ ✹ ✦ ✧	3'	4'	Hardy native
Rose, Native Fender	✤	3'	5'	Long bloom time, native
Serviceberry	✤	5'	15'	Good choice, berries
Spirea, Blue Mist	✤	2'	2'	Late summer blue flowers. Cut back in Fall
Sumac, Cut Leaf	✤	6'	8'	Does well in poor soil
Sumac, Smooth Dwarf	✤	4'-6'	3'-5'	Glossy dark green leaves turn red in fall

NAME	FEATURES	SPREAD	HEIGHT	COMMENTS
Sumac, Three Leaf	✤ ✹	5'	6'	Native spreader
LOW WATER GROUND COVERS				
Ajuga, Carpet Bugle	✤		6"-8"	Better in part shade. Flowers
Border Jewel, Himalayan	✤		6"-8"	Good in dry areas
Creeping Baby's Breath	✤		3"-6"	Flowers, will form thick carpet
Creeping Penstemon	✤		1"-2"	Blue purple bloom early summer
Creeping Phlox	✤		4"-8"	Moss like foliage. Early bloom
Creeping Potentilla	✤ ✹		1"	Aggressive, direct sun, yellow flowers
Hall's Honeysuckle	✤		6"-12"	Vinelike, prefers shade
Hardy Ice Plant	✤		1"-2"	Reddish winter color
Hens and Chicks	✤ ✹		2"-4"	Will grow in poor soil
Kinnickinnick	✤		4"-6"	Hard to establish, use with evergreens
Moneywort	✤		1"-2"	Yellow Spring flowers
Periwinkle	✤		2"-6"	Good year round plant. Blue or white flowers
Pussytoes	✤		2"-4"	Native. Good on rocky slopes
Sedum (Dragons Blood, Goldmoss, Oak-leaf, etc.)	✤ ✹		2"-4"	Popular choice, comes in many forms
Snow in Summer	✤ ✹	4'-5'	4"-6"	Hardy, woolly silver foliage, white flowers in May
Snow On The Mountain	✤		6"-12"	Aggressive. Green and white foliage
Strawberry, Barren	✤ ✹		4"-6"	Fruitless, turns bronze in spring
Strawberry, Mock	✤ ✹		2"-6"	Aggressive, forms rich green carpet
Strawberry, Wild	✤ ✹		2"-6"	Native, edible tart fruit
Thyme, Common	✤		4"-6"	Vigorous, adaptable, fragrant foliage
Thyme, Creeping	✤		1"	Small pink flowers in early spring
Thyme, Woolly	✤		1/2"	Good around stepping stones
Veronia, Speedwell	✤		varies	A diverse group with blue or pink blooms
Wall Germander	✤		4"-10"	Mounding, dark green leaves and pink flowers
Woodruff, Sweet	✤		4"-6"	Aggressive, good for dry shade
Woolly Yarrow	✤ ✹		4"-8"	Fernlike, mildly invasive
LOW WATER PERENNIALS				
Asters (Dwarf Alpine, New England)	✤	3'-4'	18"	Prefer sun. Mostly blues, pinks and purples
Blanket Flower	✤	3'-4'	3'-4'	Native with orange red flowers. Tends to spread
Butterfly Weed	✤	4'	3'	Orange flowers attract butterflies
Columbines	✤ ✹	1'	1'-2'	Colorado State Flower
Coneflower, Purple	✤ ✦ ✧	2'-3'	4'	Native upright with purple flowers
Coreopsis, Lance	✤	1'-2'	1'-3'	Dependable native with yellow flowers
Coreopsis, Threadleaf	✤	2'	2 1/2'	Native upright with yellow flowers
Daisies, Shasta	✤ ✹	1'	1'-2'	White with yellow center, goof for cuttings
Daylily	✤	3'	2'	Hardy clumps with many colors
Fernlleaf Yarrow	✤ ✹	2'	2 1/2'	Yellow flowers. Can be invasive
Flax, Blue	✤ ✹	18"	2'	White and dwarf varieties available
Fleabane	✤	4'	3'	pink and violet flowers
Gayfeather	✤	18"	2'	Spiked with purple blooms
Harebell	✤	18"	2"	Native with blue flowers. Good in rocky areas
Harebell, Adriatic	✤	18"	6"	Wide mounds of red purple flowers
Iris (Bearded, Dwarf, Siberian)	✤ ✹	3'	2'	Good cuttings plant. Many colors
Maltese Cross	✤	18"	2'-3'	Intense red color
Pearly Everlasting	✤	4'	2 1/2'	Late white bloom. Good in dry areas
Penstemon, Elfin Pink	✤ ✹ ✦ ✧	2'	2'	Pink flowers

NAME	FEATURES	SPREAD	HEIGHT	COMMENTS
Penstemon, Pineleaf	✤ ✹ ✦ ✧	1'	1'	Shrubby with red flowers
Penstemon, Rocky Mountain	✤ ✹ ✦ ✧	2 1/2'	3'	Hardy with purple and blue flowers
Peony	✤	3'	3'-4'	Old standby with many colors
Polish Bell Flower	✤	1'	6"	Drought Tolerant. Red purple flowers
Poppies, California	✤ ✹	3'-4'	6"	Orange flowers. Can be invasive
Poppy Mallow	✤	2'	6"	Red purple flowers. Can spread
Tulips	✤	varies	varies	Beautiful early season blooms
VINES				
Clematis, Sweet Autumn	✤			Aromatic white flowers in late summer or fall
Clematis, Western	✤			Tumbled mass of bright green foliage, fragrant
Clematis, Yellow	✤			Native, aggressive with bright green leaves
Clematis, Yellow Lantern	✤			Dense mass with lantern shaped flowers
Hall's Honeysuckle	✤			Aromatic trumpet like flowers
Silver Lace Vine	✤			Aggressive, very hardy
Trumpet Vine	✤			Shrubby, coarse foliage
Virginia Creeper/Engleman Ivy/Woodbine	✤ ✹			One of the best. Dense foliage, fruits attract birds
Wintercreeper, Greenleaf	✤			Shade loving
Wintercreeper, Purpleleaf	✤			Leaves turn bronze
ORNAMENTAL GRASSES				
Blue Avena Grass	✤	2'-3'	2'-3'	Powdery blue
Bluestem, Big	✤ ✦ ✧	3'-4'	3'-4'	Native. Fuzzy seed heads
Bluestem, Little	✤ ✦ ✧	12"-18"	18"-24"	One of the best. Use on slopes
Feather Reed Grass	✤	18"-24"	4'-6'	Dramatic upright clump
Fescue, Blue	✤ ✦ ✧	8"-12"	8"-12"	Blue-gray leaves
Fountain Grass, Dwarf	✤	12"-18"	12"-24"	Dense tuft of narrow arching leaves
Japanese Blood Grass	✤	12"-18"	12"-18"	Wide blades are blood red on upper portion
Maiden Grass	✤	2'-3'	4'-5'	Many cultivars with different forms and colors
Plume Grass	✤	2'-3'	6'-10'	Silver-white plumes above bright green foliage
Switchgrass	✤ ✦ ✧	18"-24"	2'-4'	Stately fountain-like columns
LOW WATER TURF GRASSES				
Blue Grama	✤ ✧			Native shortgrass. Mow at 3" height
Buffalograss	✤ ✦ ✧			Use treated seed. Use below 6000' elevations
Crested Wheatgrass	✤ ✦ ✧			Will form a sod if seeded heavily and mowed occasionally
Streambank Wheatgrass	✤ ✦ ✧			The name aside, this grass prefers dry sany soils
Thickspike Wheatgrass	✤ ✦ ✧			Prefers sandy soil. Mow periodically at 3" height
Western Wheatgrass	✤ ✦ ✧			Blue green color. Mow periodically at 3" height

APPENDIX

APPENDIX G. HILLSIDE DEVELOPMENT EVALUATION LETTER EXAMPLE

HILLSIDE DEVELOPMENT EVALUATION LETTER EXAMPLE

CITY PLANNING

CITY OF COLORADO SPRINGS

[Date]

[Contractor Name]
[Company Name]
[Address]
[City], [State] [Zip]

RE: Hillside Overlay Code and Design Guidelines Compliance and Evaluation Report: [Site Address]

Dear [Contractor Name] :

This letter is intended to provide you with an evaluation regarding your project's compliance with the requirements of the City's ***Hillside Code Requirements and Design Guidelines*** for your new [project] located at the above address. It is the responsibility of the builder to implement the Hillside requirements of your approved Hillside Site / Lot Grading Plan (HSS/LGP).

The Development Review Unit of City Planning Office conducts follow-up inspections on all new projects which have been built in the hillside overlay zoned areas. Generally, the inspectors compare the submitted Hillside Site / Lot Grading Plan (HSS/LGP) with the actual development and determine compliance and evaluate the following criteria and/or elements:

Compliance Criteria:
- Vegetation Preservation
- Driveway Width
- Fuels Management Practices
- Retaining Walls
- Structural Setbacks
- Cuts & Fills
- Height

Evaluation Elements:
- Streetscape Appearance
- Structure Matches Grade
- Use of Compatible Colors
- Hillside Character Maintained
- Side/Rear Appearance
- Mass/Height
- Building Form
- Natural Grading
- Incorporates Natural Vegetation
- Use of Natural Building Materials
- Forced Walkouts and Retaining Walls
- Percent of Front Yard in Natural Vegetation

Our evaluation of your project was as follows:

The property and project was found to be in substantial compliance with the approved HSS/LGP plan, dated _____, and is in substantial compliance with City Hillside regulations and guidelines.

or

The property and project was found not to be in compliance with the approved HSS/LGP plan, dated ____, and is not in compliance with City Hillside regulations and guidelines. Specific actions which need to be taken to bring the site and project into compliance are listed below and/or illustrated on the attached drawing or report. Please notify me once you have corrected the identified deficiencies and I will perform an additional follow-up inspection. If you have any questions please feel free to contact our office. Your understanding and cooperation will be appreciated.

We commend your actions and desire to express our appreciation for your efforts to make the Hillsides a better place for all residents of the City of Colorado Springs.

Sincerely

City Planning

101 W. Costilla; Suite 212 ● Colorado Springs, Colorado 80903 ● Telephone (719) 385-5982

COLORADO SPRINGS HILLSIDE DEVELOPMENT FOLLOW-UP INSPECTION REPORT

HS NUM:_____ADDRESS:_____RBD NUM:_____

INITIAL INSPECTION:____DATE INSPECTED:_____INSPECTOR:_____PHOTOS:____
FINAL INSPECTION:_____DATE INSPECTED:_____INSPECTOR:_____PHOTOS:____
REINSPECTION REQUIRED? _____SUSPENSE DATE:_____

BUILDING STATUS

___ No Work Done
___ Site Cleared/Foundation
___ Framing
___ Finishing/Interior
___ All Work Done

COMPLIANCE WITH SITE PLAN

___ Full Compliance
___ Substantial Compliance
___ Noncompliance (Enf. Case)
___ Not Rated

Reasons for noncompliance:(1)

___ Missing Trees
___ Missing Other Vegetation
___ Grading (Cuts/Fills)
___ Driveway Width
___ Fuels Management Practices
___ Structure or Deck
___ Bulk Standards
___ Retaining Wall
___ Other or Multiple

HILLSIDE DESIGN CRITIQUE (2) (Excellent,Good,Fair or Poor)

Parcel Features - Site:
___ Streetscape Appearance
___ Side/Rear Appearance
___ House Matches Grade
___ Incorporates Existing Natural Vegetation
___ Overall Rating

Architectural Features - Structure:
___ Mass/Height
___ Use of Natural Materials
___ Color:_____
___ Building Form
___ Overall Rating

Has the lot maintained it's hillside character?(3)_____

Did the lot have any HS character to start with?(4)_____

What % of the front yard contains native vegetation?(5)_____

Does the grading of the site appear natural?(6)_____

Is there a basement walkout?_____ Was it forced?_____

Is there a retaining wall?_____Was it forced?_____

Comments:

APPENDIX

APPENDIX H. GEOLOGIC HAZARD MITIGATION ORDINANCE

CHAPTER 14.1 - ZONING
ARTICLE 3: GENERAL SITE DEVELOPMENT STANDARDS
Part 5: Geological Hazard Study and Mitigation

Section 501: Purpose

The purpose of this Part is to identify geologic conditions, which may pose hazards to a land development project in order that appropriate mitigation or avoidance techniques may be implemented. The types of geologic hazards to be identified shall include, but not be limited to, the following:

1. Expansive soils and expansive rock
2. Unstable or potentially unstable slopes
3. Landslide Areas or potential landslide areas
4. Debris Fans
5. Rockfall
6. Subsidence
7. Shallow water tables
8. Springs
9. Flood prone areas
10. Collapsing Soils
11. Faults
12. Dipping Bedrock

Section 502: Applicability

A Geologic Hazard Study shall be required in conjunction with the City's review of the following type of land development proposals:

A. New or updated Master Plans - Preliminary study.

B. In conjunction with rezoning requests when determined to be necessary by the Planning Director, City Engineer, Planning Commission or City Council - Preliminary study.

C. Preliminary Plats - Final detailed study required.

D. Final Plats - Final study required if no report was reviewed in conjunction with the Preliminary Plat or Development Plan. Not required for replats of previous subdivisions in which buildings exist on each of the proposed lots, and no new structures (not including fences) or new building sites are being created. Planner may allow the final study to be delayed until the submittal of a development plan or minor development plan. This option may be used where a final subdivision plat is submitted prior to the submittal of a development plan or minor development plan.

E. Development Plans (including expired Development Plans which are being reconsidered) - Final study required if no report was previously reviewed in conjunction with the original Plat or Development Plan. Not required for Development Plans in which no buildings structures (not including fences), nor additions to existing buildings structures, are proposed.

Section 503: Exemptions

A. The Planning Director, in consultation with the City Engineer, may waive the requirement for the submittal of a Geological Hazard Study for the following types of projects:

1. Master Plans, Development Plans or Subdivision Plats for which Geologic Hazard Reports have been previously prepared and reviewed and which are still considered to be relevant.

2. Development proposals which exhibit all of the following characteristics:

   a. No portion of the project lies within the Hillside (HS) Overlay zone. This does not pertain to property that has received a Hillside exemption from a geologic hazard study where a geologist or geotechnical engineer has determined that geologic hazards are not present.

   b. The project contains no slopes (existing or proposed) which are unstable or potentially unstable.

   c. The project site has no history of underground mining or subsidence activity.

   d. The project site exhibits no geologic hazards which pose risks to the proposed project, other than seismicity, radiation (radon), expansive/compressible soils and bedrock (except steeply dipping expansive bedrock), shallow water table or springs, all of slight to moderately expansive soils or expansive bedrock which can be mitigated with standard foundation design/construction practices.

B. In order to be exempted an applicant shall submit a letter from a professional geologist or geotechnical engineer, who is qualified in accordance with Section 504, which states that the project meets all of the above noted criteria.

Section 504: Preparation of Geologic Studies

Geologic Hazard Studies, or exemption letters, shall be prepared by, or under the direction of, a professional geologist as defined by *CRS 34-1-201(3)*, or by a qualified geotechnical engineer as defined by Policy statement 15 - *"Engineering in Designated Natural Hazards Areas"* of the Colorado State Board of Registration for Professional Engineers and Professional Land Surveyors.

Section 505: Scope of Study

A. In general the Geological Hazard Study shall be of sufficient detail and scope to:

1. Identify the geologic hazards affecting the development site.

2. Analyze the potential negative impacts the geologic hazards will have upon the proposed project.

3. Suggest mitigation techniques, which will minimize the risk posed to the development by any identified geologic hazards.

B. The conclusions and recommendations of the study shall be based upon:

1. Site specific subsurface investigations. (Not required for Master Plan level studies.)

2. Site reconnaissance to identify the geologic features of the site and surrounding property.

3. Review of previous geologic reports within close proximity to the subject site.

4. Review of past geologic mapping in the area.

5. Conclusions drawn from the experience of the reviewing geologist.

Section 506: Geologic Hazard Report Guidelines

The following guidelines generally reflect the type of information to be included in a geologic hazard report. These guidelines are not intended to be a rigid framework of requirements, nor a specific format for all reports. Specific information listed may be deleted or may require emphasis because of unique or particular geologic conditions or due to the type of project proposed. These guidelines should be considered as a general list of geotechnical information commonly evaluated and provided in a geologic hazard investigation. A Preliminary Geologic Hazard Study shall include all the information listed in this section below except grading and subsurface investigation shall not be required.

A. GENERAL PROJECT INFORMATION

1. Size and location of the project.

2. Existing and proposed zoning and land use.

3. A statement regarding the types of land uses the report assumes will be built within the project.

4. Identification of the person who prepared the study and his/her qualifications for conducting the study per Section 504.

B. .STUDY OVERVIEW

1. State the objective(s) and level of investigation for the study.

2. Cite the previous publicly available geologic reports which were reviewed or referenced in the course of preparing the geologic hazard study and indicate the author(s), firm, and dates of each report.

3. List all the methods of investigation as well as professional firm(s) and individuals who participated.

4. If the level of investigation varies within the subject area, describe in the text and show on the maps areas of concentration or exclusion.

5. Describe the general physiographic setting of the project and its relationship to local topographic features.

6. Describe the general geologic setting of the project and indicate any lithologic, tectonic, geomorphic, or soils problems specific to the area.

7. Describe the general surface and ground water conditions.

C. SITE EVALUATION TECHNIQUES

1. State the extent and method of surface and subsurface geologic studies.

2. Geologic Mapping.

   a. Prepare geologic map(s) on the project topographic map to show important details corresponding to the size, extent and degree of the investigation.

   b. Show the abundance and distribution of earth materials and structural elements exposed or inferred in the subject area. Observed and inferred features or relationships should be so designated on the geologic map.

   c. Depict significant three dimensional relationships on appropriately positioned cross sections.

   d. Portray all geologic information at the same scale as the project plans. Use "tie-points" between the geologic map, topographic map, and project plans.

   e. Indicate the geologic base map use, date, and significant additions and modifications to previous work.

3. Aerial Photographs and Remote-Sensing Imagery

   a. Describe type(s) of photographs or images including instrumentation, processing techniques, and final product.

   b. Indicate data and scale of photographs or imagery used in the investigation.

   c. Indicate usefulness and general relationships observed on the images.

4. Geophysical Investigations

a. State type and objectives of the geophysical investigation(s) (if any), quality of the data, and limitations of the geophysical techniques.

b. Describe the information used to correlate the geophysical data and geologic conditions.

c. Display the geophysical data on the topographic/geologic maps and cross sections.

5. Drill-Hole Data

a. State the specific investigative methods, tests conducted, drilling, and date of investigation.

b. Show the location of all borings on the topographic or geologic map.

c. Show boring logs, geophysical logs, or profiles obtained in the investigation.

6. Test Pits and Trenches

a. Describe the location and dimensions of all pits and trenches and date of investigation.

b. Indicate the location of all excavations on the topographic/geologic map and profiles.

c. Provide a large scale descriptive log with sufficient detail.

d. Show sample locations if supplemental laboratory tests were conducted.

7. Field and Laboratory Tests

a. Describe the type of any tests conducted in the field or laboratory.

b. Describe the sample method and test procedures.

c. Show the test results on data work sheets or on summary tables.

8. Monitoring Programs

a. Describe the type, objectives, and location of all monitoring programs in the subject area.

b. State the monitoring period, the firm(s) or individuals responsible for the care and disposal of the installations.

D. GEOLOGIC DESCRIPTIONS

1. BEDROCK UNITS: Sedimentary, igneous, and metamorphic rock types.

a. Rock type and bedding attitude or foliation.

b. Age of and correlation with recognized formations.

c. Dimensional characteristics such as thickness and extent.

d. Distribution and extent of the weathered zone.

e. Physical characteristics.

f. Response of bedrock materials to natural processes.

2. SURFICIAL DEPOSITS: fluvial, colluvial, glacial, eolian, mass wasting, and man-made deposits.

   a. Distribution, occurrence, and age.

   b. Identification of material types and sources.

   c. Dimensional characteristics such as thickness and extent.

   d. Surface expression and relationships with present topography.

   e. Physical and chemical characteristics.

   f. Distribution and extent of altered zones.

3. GEOMORPHIC FEATURES: landslides, earthflows, debris flows, mudflows, rockfalls, debris avalanches, fault scarps, soil creep, erosion scarps, avalanches paths, and subsidence phenomenon.

   a. Location and distribution.

   b. Dimensional characteristics.

   c. Age of feature and history of activity.

   d. Recurrence interval for geomorphic process.

   d. Physical characteristics including depth, flow velocities, and impact pressures.

4. STRUCTURAL FEATURES: joints, faults, shear zones, folds, schistocity, and foliation.

   a. Occurrence, distribution, and proximity to site.

   b. Dimensional and displacement characteristics of faults.

   c. Orientation and changes in orientation.

   d. Physical characteristics such as brecciation, slickensides, gouge zones, sand boils, sag ponds, springs alignment.

   e. Disrupted drainages, or ground-water barriers.

   f. Nature of offset(s) and timing of movement(s).

   g. Absolute or relative age of latest movement.

5. SURFACE DRAINAGE: streams, creeks, draws and springs.

    a. Distribution.

    b. Relation to topography (drainage patterns).

    c. Relation to areas of vegetation, including wetlands.

    d. Relation to geologic features.

    e. Source, permanence, and variation in amount of surface water.

    f. Evidence of earlier occurrence of water at localities now dry.

    g. Estimated peak flows and physiographic flood plain of drainages.

    h. Probable maximum or 100-year flood limits, including flash and debris floods.

    i. Outfall.

6. GROUND WATER: confined and unconfined.

    a. Distribution and occurrence.

    b. Hydraulic gradients.

    c. Recharge areas for aquifers.

    d. Relation to topography.

    e. Relation to geologic features.

    f. Seasonal variations.

E. GEOLOGIC INTERPRETATION

1. GEOLOGIC HAZARDS (landslides, avalanches, rockfall, mudflows, debris flows, radioactivity)

    a. Geomorphic and structural features/processes present in the area.

    b. Man-induced features/processes.

    c. Age and activity of the features/processes.

    d. Natural conditions affecting the features/processes.

    e. Susceptibility to man-induces changes.

    f. Potential impact of hazard(s) and risk to project.

    g. Amenability of adverse conditions for adequate mitigation.

h. Long-term lateral and vertical stability of earth materials.

i. Impact of project on materials stability.

2. GEOLOGIC CONSTRAINTS (expansive soil or rock, potentially unstable slopes, high groundwater levels, soil creep, hydrocompaction, shallow bedrock, erosion).

a. Soil, surface and ground water, and geomorphic conditions.

b. Man-induced conditions.

c. Activity of conditions.

d. Effect of natural or man-induces changes.

e. Potential impact of conditions and risk to project.

f. Amenability of adverse conditions for adequate mitigation.

g. Impact of project on long-term project stability.

F. THE BEARING OF GEOLOGIC FACTORS UPON THE INTENDED LAND USE

This topic normally constitutes the principal contribution of the report. It involves both the effects of geologic features upon the proposed grading, construction, and land use; and the effects of these proposed modifications upon future geological processes in the area. The following checklist includes the topics that ordinarily should be considered as part of the findings, conclusions, and recommendations of the geologic reports:

1. General compatibility of natural features with proposed land use:

a. Topography

b. Lateral stability of earth materials.

c. Problems of flood inundation, erosion, and deposition.

d. Problems caused by features or conditions in adjacent properties.

e. Problems potentially caused to adjacent properties.

f. Other general problems.

2. Proposed Cuts:

a. Prediction of what materials and structural features will be encountered.

b. Prediction of stability based on geologic factors.

c. Problems of excavation (e.g. unusually hard or massive rock, excessive flow of groundwater).

d. Recommendations for reorientation or repositioning of cuts, reduction of cut slopes, development of compound cut slopes, special stripping above daylight lines, buttressing, protection against erosion, handling of seepage water, setbacks for structures above cuts, etc.

3. Proposed masses of fill:

    a. General evaluation of planning with respect to canyon-filling and sidehill masses of fill.

    b. Comment on suitability of existing natural materials for fill.

    c. Recommendations for positioning of fill masses, provision for underdrainage, buttressing, special protection against erosion.

4. Recommendations for subsurface testing and exploration:

    a. Cuts and test holes needed for additional geologic information.

5. Special recommendations:

    a. Areas to be left as natural ground.

    b. Removal or buttressing of existing slide masses.

    c. Flood protection.

    d. Problem of groundwater circulation.

    e. Position of structures, with respect to active faults.

    f. Problems associated with radon gas and soil radioactivity.

    g. Problems caused by natural flammable gas, e.g. methane.

G. CONCLUSIONS

1. State whether the intended use of the land is compatible with any identified or potential geologic hazards or constraints; and if mitigation measures are necessary.

2. Discuss the critical planning and construction aspects including irrigated landscaping, the stability of earth materials, grading plans, the need for selective location of project facilities, static and dynamic parameters for the design of structures.

3. Clearly state the geologic basis for all conclusions.

H. RECOMMENDATIONS

1. Discuss the development of mitigation procedures or design changes necessary to minimize or abate any hazardous condition. Each hazardous condition requires a recommendation.

2. The recommendation should focus upon the long-term stability and safety of the proposed project.

Section 507: Review of Geologic Hazard Studies

A. Geologic Hazard Studies will be reviewed concurrently by the City Planning and City Engineering staffs in conjunction with the City's normal review of the land development proposal. The City's review shall determine whether the findings, conclusions and recommendations of the Geological Hazard Study have been incorporated into the design of the Development Plan, Subdivision Plat, Drainage Plan, Grading Plan and Street construction documents. If the review by the City determines that the study submitted is incomplete or fails to comply with the guidelines set forth in this Part 5, the study may be rejected and a new or supplemental study may be required. In cases where significant geologic hazards are identified, appropriate mitigation measures shall be required in conjunction with the approval of the project. Said mitigation measures shall include, but not be limited to:

1. Changes to the proposed land use configuration

2. Modification of land use types

3. Modification of lot boundaries or building envelopes

4. Special foundation designs

5. Geotechnical engineering solutions

6. Limitations on irrigated landscape designs

7. Special drainage designs

B. City staff, Planning Commission or City Council may, at their discretion, have Geologic Hazard Studies independently reviewed by the Colorado Geological Survey (CGS) or by an independent professional geologist or qualified geotechnical consultant. This separate discretionary review shall be completed within a twenty-one (21) working day time frame, shall supplement the City's review and will be considered by the City in making a final recommendation or determination on the land development proposal application. The cost for discretionary of having independent review and analysis of geologic hazard reports shall be borne by the City.

C. Consultant Review/Analysis Panel

Prior to Planning Commission consideration, an applicant may request access to the Consultant Review/Analysis Panel. Applicant's request shall be in writing and shall specify the issue(s) raised by discretionary review or staff recommendation with which the applicant disagrees. Applicant's request must be filed within 10 days of the date of either discretionary review or staff recommendation, whichever is later.

The panel shall consist of three members who may be professional geologists or geologic engineers, or qualified geology or engineering academicians selected by the Manager who shall conduct a thorough evaluation of the Geologic Hazard Study or discretionary review and may conduct site visits or request additional testing. The panel's findings shall be included in staff's recommendation on the

application. The Manager may establish policies and procedures for Panel review. The cost of the Panel shall be borne by the applicant.

Section 508: Disclosure Statement

The following disclosure statement shall be placed upon each Subdivision Plat and Development Plan, which is subject to a Geologic Hazard Study:

"This property is subject to the findings summary and conclusions of a Geologic Hazard Report prepared by _____ dated _____. A copy of said report has been placed within file: _____ of the City of Colorado Springs ***City Planning Office****. Contact* ***City Planning****, 30 South Nevada Avenue, Suite 301, Colorado Springs, CO, if you would like to review said report.".*

Section 509: Geologic Terms and Definitions

SLOPE MOVEMENT

AVALANCHE: A large mass of snow, ice, soil or rock, or mixtures of these materials, falling, sliding, or flowing very rapidly under the force of gravity. A mass of snow or ice and other material which may become incorporated therein as such mass moves rapidly down a mountain slope.

CREEP: slow, gradual, more-or-less continuous deformation sustained by ice, soil, and rock materials under gravitational body stresses.

DEBRIS FAN: A triangular-shaped landform that forms by deposition of material at the intersection of a tributary valley with a larger valley. The material consists of stream-flood sediments and/or mudflow material and is deposited where the stream channel size opens into the larger valley. A floodplain which is located at the mouth of a mountain valley tributary stream as such stream enters the valley floor.

DEBRIS FLOW: .A mass movement involving rapid flowage of debris of wet soil, rock and displaced vegetation; specifically, a high-density flow containing abundant coarse-grained materials and resulting almost-invariably from an unusually heavy rain or from a dry rock fall of unusually large volume.

DEBRIS SLIDE: A slide involving a slow to rapid downslope movement of comparatively dry and predominantly unconsolidated and incoherent earth, soil, and rock debris in which the mass does not show backward rotation but slides or rolls forward, forming an irregular, hummocky deposit.

EARTHFLOW: A type of slope movement and process characterized by downslope translation of soil and weathered rock over a discrete basal shear surface within well defined lateral boundaries in which the internal motions of the flowing mass approaches those of viscous fluids. Earthflows grade into mudflows through a continuous range in morphology associated with increasing fluidity.

LANDSLIDE: A general term covering a wide variety of slope movement landforms and processes involving the downslope transport, under gravitational influence, of soil and rock material en mass. Usually the displaced material moves over a relatively confined zone or surface of shear.

MUDFLOW: A general term for a mass-movement landform and a process characterized by a flowing mass of predominantly fine-grained earth material possessing a high degree of fluidity during movement. The downward movement of mud in a mountain watershed because of peculiar characteristics of extremely high sediment yield and occasional high runoff.

POTENTIAL UNSTABLE SLOPES: An area that is susceptible to a landslide, a mudflow, a rockfall, or accelerated creep of slope-forming materials.

ROCKFALL: The relatively free falling or precipitous movement of a newly detached segment of bedrock (usually massive, homogeneous, or jointed) of any size from a cliff or other very steep slope. A kind of geologic hazard.

SAFETY FACTOR: Analysis of the stability of a slope consists of assuming a failure surface and comparing disturbing forces due to the weight of material and pore pressures with restraining forces provided by the shear strength of the slope material. The ratio of the maximum restraining force which can be developed along a potential slip surface to the amount actually required for stability gives the factor of safety against slope failure along that surface.

SLUMP: A slope movement feature characterized by a shearing and rotary movement of a generally independent mass of rock or earth along a curved slip surface (concave upward) and about an axis parallel to the slope from which it descends, and by backward tilting of the mass with respect to that slope-facing uphill.

SLUMP (rotational slide): All landslides having a concave upward, curved failure surface and involving a backward rotation of the original slide mass.

SOIL CREEP: The gradual, steady downhill movement of soil and loose rock material on a slope that may be very gentle but is usually steep.

SOIL

BENTONITE: A common name for layers of white or yellow clay containing a mineral called "montmorillonite" which is formed from the weathering of volcanic ash; it may be highly swelling if exposed to water while dry.

COLLAPSIBLE SOIL: Certain relatively dry soils that have a high void ratio and will support a heavy load at natural moisture content but, when water is added, undergo a collapse of internal structure and a reduction in volume that results in subsidence of the ground surface and densification of the wetted soil column.

COLLUVIAL SOILS: Any loose, poorly sorted mass of soil or rock material deposited by rapid, water-deficient, gravity-dominated processes such as normal surficial creep, landslides, and rock-falls; the soil or rock may range in size from clay to boulders.

EXPANSIVE SOIL: Includes soil that contains clay and which expands to a significant degree upon wetting and shrinks upon drying.

HYDROCOMPACTION: A property of some dry, unconsolidated deposits to undergo, after wetting, spontaneous compaction, settling and cracking. Commonly this occurs in areas that are normally dry, but are subjected to abnormal wetting from sewage disposal systems, stream diversions, irrigation systems, or water carrier breakage.

SHRINKAGE LIMIT: The moisture content below, which no volume change will occur

SOIL: In engineering work a soil is any earthen material, excluding hard bedrock, composed of 1) loosely bound mineral and organic particles, 2) water, and 3) gases.

SWELLING Clay that is capable of absorbing large quantities of water, thus increasing greatly in volume.

ROCK

EXPANSIVE ROCK: Includes rock that contains clay and which expands to a significant degree upon wetting and shrinks upon drying.

IGNEOUS ROCK: Bedrock which has developed due to subsurface (intrusive) melting and cooling processes or the cooling of molten material at the surface of the Earth (extrusive).

SEDIMENTARY ROCK: Bedrock that has been solidified by the processes of lithification, compaction, cementation, and/or precipitation.

STEEPLE DIPPING BEDROCK: Bedrock, which has been deformed from the original horizontal position to dip angles of 45° or more.

OTHER

DESIGN EARTHQUAKE: The earthquake for which protective measures should be taken in the design of all construction. The highest magnitude and intensity earthquake that can be expected to affect a given site.

ENGINEERING GEOLOGIST: An individual who has obtained a degree in Geology and has obtained professional abilities from experience and/or higher education training in engineering geology areas.

PIPING: Erosion by percolating water in a layer of subsoil, resulting in caving and in the formation of narrow conduits, tunnels, or pipes; through which soluble or granular soil material is removed. The primary reason for what is called mine subsidence in the local area.

PROFESSIONAL ENGINEER: An individual who has completed a degree in one of the engineering disciplines and who has become licensed as a Professional Engineering by completing the requirements of the State where work will be completed.

PROFESSIONAL GEOLOGIST: One who is trained in and works in any of the geological sciences. Usually has completed a minimum of 30 hours of geology, received a under graduate degree in one of the geological sciences, and has worked professionally for five years.

RADON; The gaseous component of Radon-220 which develops in the decay of various isotopes of uranium found in areas of the Pikes Peak granite and sedimentary rocks composed of weathered Pikes Peak Granite.

SCOUR: The powerful and concentrated clearing and digging action of flowing air, water, or ice, especially the downward erosion by stream water in sweeping away mud and silt on the outside curve of a bend, or during a time of flood

SEISMIC: Pertaining to earthquakes or earth vibrations, including those that are manmade, e.g., explosions, underground nuclear blasts.

APPENDIX

APPENDIX I. GRADING PLAN / GRADING ENFORCEMENT ORDINANCE

CHAPTER 15 ANNEXATION, SUBDIVISIONS AND LAND DEVELOPMENT

ARTICLE 3 SUBDIVISION REGULATIONS

PART 15 GRADING PLANS

SECTION:

15-3-1501: Purpose
15-3-1502: Definitions
15-3-1503: Grading Plans
15-3-1504: Public Nuisance Declared
15-3-1505: Commencement of Correction Proceedings
15-3-1506: Notice and Order to Correct
15-3-1507: Service of Notice and Order
15-3-1508: Record Notice and Order, Certificates
15-3-1509: Standards for Correction
15-3-1510: Form of Appeal
15-3-1511: Effect of Failure to Appeal
15-3-1512: Staying Order Under Appeal
15-3-1513: Processing Appeal
15-3-1514: Scope of Hearing on Appeal
15-3-1515: Procedure for Hearing Appeals
15-3-1516: Conduct of Hearing
15-3-1517: Method and Form of Decision
15-3-1518: Enforcement of Order
15-3-1519: Failure to Obey
15-3-1520: Report Account of Expenses
15-3-1521: Protests and Objections
15-3-1522: Hearing on Report, Protest
15-3-1523: Personal Obligation or Special Assessment
15-3-1524: Contest Assessment
15-3-1525: Lien of Assessment
15-3-1526: Report to Assessor and Tax Collector
15-3-1527: Collection of Assessment
15-3-1528: Repayment of Correction Fund
15-3-1529: Responsibility and Liability

15-3-1501: PURPOSE:

The purpose of this Part is to safeguard life, limb, property and the public welfare from grading on private property. It is not the purpose of this Part that the City regulate grading, unless specifically required elsewhere in this Code[1] by approving grading plans, but rather, to require persons who engage in grading or who have grading undertaken to accomplish the grading in a safe manner so that grading does not result in adverse effects to persons or property, or both. (Ord. 82-56)

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1. See Section 14.1-2-504-F (Grading Plans in Hillside Area Overlay Zone) and Section 15-3-502C2 (Grading plans may be required to be submitted with preliminary plats in hillside areas where slopes exceed 10%).

15-3-1502: DEFINITIONS:

DANGEROUS GRADING: Any fill, excavation or grading that as a result of natural or unnatural conditions has or will result in damage to life, limb or property.

CITY ENGINEER: The City Engineer or his designated representative.

EXCAVATION: The mechanical removal of earth material.

FILL: A deposit of earth material by mechanical means.

GRADING: Any excavating or filling or combination thereof. (Ord. 82-56)

15-3-1503: GRADING PLANS:

No person shall undertake any grading on private property that will result in:

A. Excavation or fill of seven hundred fifty (750) cubic yards, or

B. The grading of a site with platted acreage of two (2) or more acres, or

C. Grading on any property with a natural slope in excess of eight percent (8%), or

D. Any combination of the above three, or

E. Any grading or other disturbance of land in an area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code, unless such person has obtained from a registered professional engineer or architect licensed by the State of Colorado a grading plan done in such a manner so as to protect other property from the adverse effects of the grading. Such grading plan shall bear the seal of a registered professional engineer, or the seal or signature of an architect licensed by the State of Colorado and shall include a cost estimate for the grading to be undertaken. Specifically, and without limitation or inclusion, the grading plan should include the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures when necessary, and should be of sufficient clarity to indicate the nature and extent of the work proposed and shall provide that such work will not become a hazard to life and limb, endanger property, or adversely affect the safety, use or stability of a public way, drainage channel or other property. Such grading plan shall be filed with the City Engineer and a receipt shall be given so long as the grading plan bears the seal of a registered professional engineer or seal or signature of an architect licensed by the State of Colorado. The receipt shall constitute a grading permit; provided that such receipt shall not constitute a grading permit for any area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code. (Ord. 82-56; Ord. 83-229)

15-3-1504: PUBLIC NUISANCE DECLARED:

All grading which is determined, after inspection by the City Engineer, to be dangerous as defined in Section 15-3-1502 or any grading or other disturbance of land in areas zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code is hereby declared to be a public nuisance and shall be abated by correction in accordance with a grading plan obtained from a registered professional engineer licensed by the State of Colorado. (Ord. 82-56; Ord. 83-229)

15-3-1505: COMMENCEMENT OF CORRECTION PROCEEDINGS:

Whenever the City Engineer has inspected or caused to be inspected any grading and has found and determined that such grading is dangerous grading, he shall cause corrective proceedings to be undertaken. (Ord. 82-56)

15-3-1506: NOTICE AND ORDER TO CORRECT:

The City Engineer shall issue a notice and order directed to the record owner of the property on which the dangerous grading has or will occur and may issue a notice and order directed to the record owner of the property where grading or other disturbance of land in an area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code has occurred or will occur. The notice and order shall contain:

A. The street address and a description sufficient for identification of the premises upon which the grading is located.

B. A statement that the City Engineer has found the grading to be dangerous or has found grading or other disturbance of land in an area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code with a brief and concise description of the conditions found to render the grading dangerous under the provisions of Section 15-3-1502, or the conditions that constitute grading or other disturbance of land in an area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code.

C. A statement of the action required to be taken as determined by the City Engineer.

D. Statements advising that if any required corrective measures are not commenced within the time specified, the City Engineer may proceed to cause the corrective measures to be undertaken and charge the cost thereof against the property or its owner.

E. Statements Advising:

1. That any person having any record title or legal interest in the property may appeal from the notice and order or any action of the City Engineer to the City Council, provided the appeal is made in writing as provided herein, and filed with the City Engineer within ten (10) days from the date of service of such notice and order; and

2. That failure to appeal will constitute a waiver of all right to a hearing and determination of the matter. (Ord. 82-56; Ord. 83-229)

15-3-1507: SERVICE OF NOTICE AND ORDER:

A. To Whom Made: Notice and order, and any amended or supplemental notice and order, shall be served upon the record owner, and posted on the property; and one copy thereof shall be served on each of the following if known, to the City Engineer or disclosed from official public records:

1. The holder of any mortgage or deed of trust or other lien or encumbrance of record; and

2. The owner or holder of any lease of record; and

3. The holder of any other estate or legal interest of record in or to the real property.

A3) Failure of the City Engineer to serve any person required herein to be served shall not invalidate any proceedings hereunder as to any other person duly served or relieve any such person from any duty or obligation imposed on him by the provision of this section.

B. Method of Service: Service of the notice and order shall be made upon all persons entitled thereto either personally or by mailing a copy of such notice and order by certified mail, postage prepaid, return receipt requested, to each such person at his address as it appears on the assessment roll of the County or is known to the City Engineer. If no address of any such person so appears or is not known to the City Engineer, then a copy of the notice and order shall be so mailed, addressed to such person, at the address of the real property involved in the proceedings. Failure of any such person to receive such notice shall not affect the validity of any proceedings taken under this Section. Service by certified mail in the manner herein provided shall be effective on the date of mailing.

C. Proof of Service. Proof of service of the notice and order shall be certified to at the time of service by a written declaration under penalty of perjury executed by the person effecting service, declaring the time, date, manner in which service was made. The declaration, together with any receipt card returned in acknowledgment of receipt by certified mail shall be affixed to the copy of the notice and order retained by the City Engineer. (Ord. 82-56)

15-3-1508: RECORD NOTICE AND ORDER, CERTIFICATES:

Upon initiation of the service of the notice and order, the City Engineer shall file in the office of the County Clerk and Recorder of El Paso County a certificate describing the property and certifying:

A. That the property is in a dangerous grading condition, or the property has been graded or other disturbance of land has occurred in an area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code, which grading or other disturbance of the land is not in conformity with this Part 5, and

B. That the owner is being so notified.

Whenever the City Engineers' order has been reversed on appeal, or the corrections ordered shall thereafter have been completed, the City Engineer shall file a new certificate with the County Clerk and Recorder certifying that the order has been rescinded or that all required corrections have been made so that there is no longer a dangerous grading condition or there is conformity with the requirements of the Hillside Area Overlay zone, Part 5 of Article 2 of Chapter 14.1 of the City Code. (Ord. 82-56; Ord. 83-229)

15-3-1509: STANDARDS FOR CORRECTION:

Any grading declared dangerous grading under this Article; or any grading or other disturbance of land in an area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code shall be corrected in accordance with a grading plan obtained from a registered professional engineer or from an architect licensed by the State of Colorado, the grading plan on file with the City Engineer, grading plan or a corrected grading plan obtained from a registered professional engineer or from an architect licensed by the State of Colorado and in addition, in an area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code, all requirements of that Part shall be met. (Ord. 82-56: Ord. 83-229)

15-3-1510: FORM OF APPEAL:

Any person served may appeal from any notice and order of any action of the City Engineer by filing at the office of the City Engineer, within ten (10) days after the date of service of such order a written appeal containing:

A. A caption reading: "Appeal of_____" giving the names of all appellants participating in the appeal.

B. A brief statement setting forth the legal interest of each of the appellants in the land involved in the notice and order.

C. A brief statement, in ordinary and concise language, of the specific order or action protested, together with any material facts claimed to support the contentions of the appellant.

D. A brief statement, in ordinary and concise language, of the relief sought and the reasons why it is claimed the protested order should be reversed, modified, or otherwise set aside.

E. The signatures of all parties named as appellants and their official mailing addresses.

F. Verification of at least one appellant as to the truth of the matter stated in the appeal. (Ord. 82-56)

15-3-1511: EFFECT OF FAILURE TO APPEAL:

The failure of any person to file an appeal in accordance with the provisions of Section 15-3-1510 shall constitute a waiver of his right to a hearing and adjudication of the notice and order, or any portion thereof. (Ord. 82-56)

15-3-1512: STAYING ORDER UNDER APPEAL:

No stay during the pendency of an appeal shall be allowed unless the appellants establish to the satisfaction of the City Engineer that grading on the property will alleviate the dangerous grading condition or that continued grading on the property will not aggravate the dangerous grading condition being appealed; provided that in any area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code, no grading or other disturbance of land shall be allowed during the pendency of an appeal unless the appellants establish to the satisfaction of the City Engineer with the concurrence of the Manager of Development Services that grading the property will alleviate the dangerous grading condition or that grading on the property is in conformity with all the requirements of the Hillside Area Overlay zone, Part 5 of Article 2 of Chapter 14.1 of the City Code. (Ord. 82-56; Ord. 83-229)

15-3-1513: PROCESSING APPEAL:

Upon receipt of any appeal filed pursuant to this Section, the City Engineer shall present it at the next regular meeting of the City Council. As soon as practical, after receiving the written appeal, City Council shall fix a date, time and place for the hearing of the appeal by the Council. Such date shall not be less than ten (10) days nor more than thirty (30) days from the date the appeal was filed with the City Engineer. Written notice of the time and place of the hearing shall be given at least ten (10) days prior to the date of the hearing to each appellant by the City Clerk either by causing a copy of such notice to be delivered to the appellant personally or by mailing a copy thereof, postage prepaid, addressed to the appellant at his address shown on the appeal. (Ord. 82-56)

15-3-1514: SCOPE OF HEARING ON APPEAL:

Only those matters or issues specifically raised by the appellant shall be considered in the hearing of the appeal. (Ord. 82-56)

15-3-1515: PROCEDURE FOR HEARING APPEALS:

A. Records and Reports. A record of the entire proceeding shall be made by tape recording, or by any other means of permanent recording determined to be appropriate by the City Council. A transcript of the proceedings shall be made available to all parties upon request and upon payment of the fee prescribed therefor. Such fees may be established by the City Council, but shall in no event be greater than the cost involved.

B. Continuances. The City Council may grant continuances for good cause shown.

C. Oaths; Certifications. In any proceedings under this Section, the City Council, or any member thereof, has the power to administer oaths and affirmations and to certify to official acts.

D. Reasonable Dispatch. City Council shall proceed with reasonable dispatch to conclude the matter before it. (Ord. 82-56)

15-3-1516: CONDUCT OF HEARING:

A. Rule. Hearings need not be conducted according to the technical rules relating to evidence and witnesses.

B. Evidence.

1. Oral Evidence: Oral evidence shall be taken only on oath or affirmation.

2. Hearsay Evidence. Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence, but shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions in courts of competent jurisdiction in this State.

3. Admissibility of Evidence. Any relevant evidence shall be admitted if it is the type of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common law or statutory rule which might make improper the admission of such evidence over objection in civil actions in the courts of competent jurisdiction in this State.

4. Exclusion of Evidence. Irrelevant and unduly repetitious evidence shall be excluded.

C. Rights of Parties. Each party shall have these rights among others:

1. To call and examine witnesses on any matter relevant to the issues of the hearing; and

2. To introduce documentary and physical evidence; and

3. To cross-examine opposing witnesses on any matter relevant to the issues of the hearing; and

4. To impeach any witness regardless of which party first called them to testify; and

5. To rebut the evidence against them; and

C) 6. To represent himself or to be represented by anyone of his choice who is lawfully permitted to do so. (Ord. 82-56)

15-3-1517: METHOD AND FORM OF DECISION:

A. Hearing Before City Council: Before a contested case is heard before the City Council, no member thereof who did not hear the evidence or has not read the entire record of the proceeding shall vote or take part in the decision.

B. Form of Decision. The decision shall be in writing and shall contain findings of fact, a determination of the issues presented, and the requirements to be complied with. A copy of the decision shall be delivered to the appellant personally or sent to him at the address set forth in the appeal by certified mail, postage prepaid, return receipt requested.

C. Effective Date of Decision. The effective date of the decision shall be as stated therein. (Ord. 82-56)

15-3-1518: ENFORCEMENT OF ORDER:

After any order of the City Engineer or City Council made pursuant to this Article shall have become final, no person to whom any such order is directed shall fail, neglect or refuse to obey any such order. Any such person who fails to comply with any such order is guilty of a misdemeanor. (Ord. 82-56)

15-3-1519: FAILURE TO OBEY:

A. If, after any order of the City Engineer or City Council made pursuant to this Article has become final, the person to whom such order is directed shall fail, neglect or refuse to obey such order, the City Engineer may:

1. Cause such person to be prosecuted under Section 15-3-1518 above; or

2. Institute any appropriate action to abate such dangerous grading or grading or other disturbance of land in an area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code as a public nuisance.

B. Whenever the required corrective action is not commenced within ten (10) days after any final notice and order issued under this Article becomes effective, the City Engineer shall cause the grading to be corrected to the extent necessary to correct the conditions which render the grading dangerous as set forth in the notice and order, or in any area zoned Hillside Area Overlay zone under Part 5 of Article 2 of Chapter 14.1 of the City Code to take such action as necessary to bring the grading or other disturbance of land in conformity with that Part. (Ord. 82-56; Ord. 83-229)

15-3-1520: REPORT ACCOUNT OF EXPENSES:

The City Engineer shall keep an itemized account of the expenses incurred by the City in correction of any dangerous grading or any action taken by the City to meet the requirements of the Hillside Area Overlay zone, Part 5 of Article 2 of Chapter 14.1 of the City Code and upon completion of the correction the City Engineer shall prepare and file with the City Clerk, a report specifying the work done, the itemized and total cost of the work, a description of the real property upon which the grading or other land disturbance is or was located, and the names and addresses of the person entitled to notice. Upon receipt of said report, the City Clerk shall fix the time, date and place for hearing said report, and any protests or objections thereto. The City Clerk shall cause notice of said

hearing to be posted upon the property involved, publish once in a newspaper of general circulation in the City, and serve by certified mail, postage prepaid, addressed to the owner of the property as his name and address appears on the assessment role at the County Assessor, if such so appears, or as known to the Clerk. Such notice shall be given at least ten (10) days prior to the date set for the hearing, and shall specify the day, hour and place when Council will hear and pass upon the City Engineer's report, together with any objections or protests which may be filed as hereinafter provided by any person interested in, or affected by the proposed charge. (Ord. 82-56; Ord. 83-229)

15-3-1521: PROTESTS AND OBJECTIONS:

Any person interested in or affected by the proposed charge may file written protests or objections with the City Clerk at any time prior to the time set for hearing on the report of the City Engineer. Each such protest or objection must contain a description of the property in which the signor thereof is interested and the grounds of such protest or objection. The City Clerk shall endorse on every such protest or objection the date it was received by him and shall present such protest or objections to the City Council at the time set for the hearing. No other protests or objections shall be considered. (Ord. 82-56)

15-3-1522: HEARING ON REPORT, PROTEST:

Upon the day and hour fixed for the hearing, the City Council shall hear and pass upon the report of the City Engineer together with any such objections or protests. The Council may make such revision, correction and modification in the report or the charges it may deem just; and when the Council is satisfied with the correctness of the charge, the report (as submitted or revised, corrected or modified) together with the charge, shall be confirmed or rejected. The decision of the City Council and the report and the charge, and on all protests or objections shall be final and conclusive. (Ord. 82-56)

15-3-1523: PERSONAL OBLIGATION OR SPECIAL ASSESSMENT:

City Council may thereupon order that such charge shall be made a personal obligation of the property owner or assess such charge against the property involved.

A. Personal Obligation. If the City Council orders that the charge shall be a personal obligation of the property owner, it shall direct the City Attorney to collect the same on behalf of the City by use of all appropriate legal remedies.

B. Special Assessment. If the City Council orders that the charge shall be assessed against the property, it shall confirm the assessment role, and thereafter said assessment shall constitute a special assessment against any lien upon the property, and shall be collected in the same manner as any other special assessment of the City. (Ord. 82-56)

15-3-1524: CONTEST ASSESSMENT:

The validity of any assessment made under the provisions of this Article shall not be contested in any action or proceeding unless the same is commenced within thirty (30) days after the assessment is placed upon the assessment role as provided herein. Any appeal from a final judgment in such action or proceeding must be perfected within thirty (30) days after entry of such judgment. (Ord. 82-56)

15-3-1525: LIEN OF ASSESSMENT:

A. Priority. Immediately upon its being placed on the assessment role, the assessment shall be deemed to be complete, the several amounts assessed shall be payable, and the assessments shall be liens against the lots or parcels of land assessed, respectively. The liens shall be subordinate to all existing special assessment liens previously imposed upon the same property, and shall be paramount to all other liens except for State, County and Municipal with which it shall be upon a parity. The liens shall continue until the assessment and all interest due and payable thereon are paid.

B. Interests. All such assessments remaining unpaid after thirty (30) days from the date of recording on the assessment role shall become delinquent and shall bear interest at the rate of one percent (1%) per month from and after said date. (Ord. 82-56)

15-3-1526: REPORT TO ASSESSOR AND TAX COLLECTOR:

After confirmation of the report, certified copies of the assessment shall be given to the County Treasurer on or before October 15. (Ord. 82-56)

15-3-1527: COLLECTION OF ASSESSMENT:

The amount of the assessment shall be collected at the same time and in the same manner as general taxes are collected; and shall be subject to the same penalties and procedure and sale in case of delinquency as provided for general Municipal taxes. All laws applicable to the levy, collection and enforcement of general Municipal taxes shall be applicable to such assessment. (Ord. 82-56)

15-3-1528: REPAYMENT OF CORRECTION FUND:

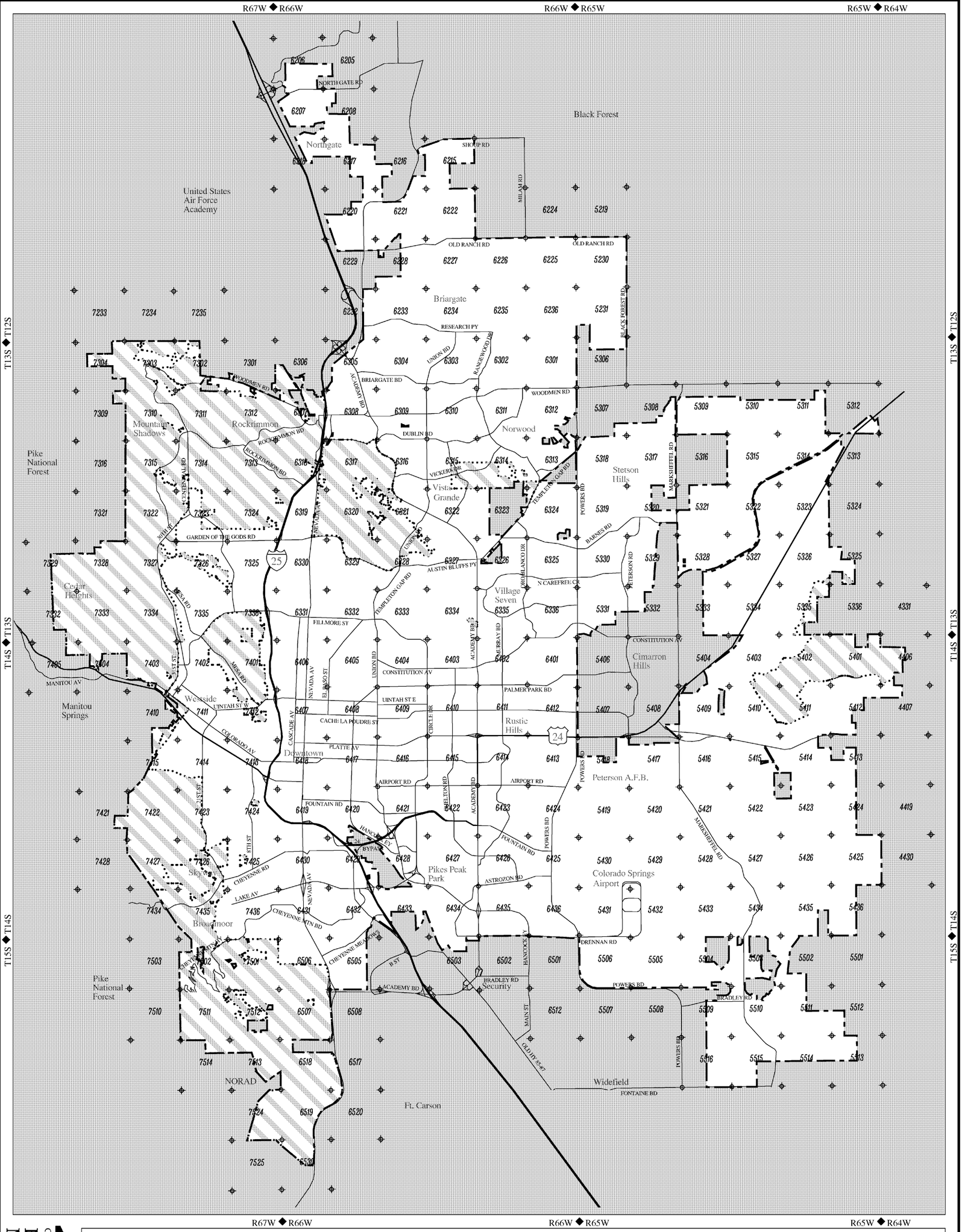
All money recovered by payment of the charge or assessment or from the sale of property at foreclosure sale shall be paid to the City Treasurer who shall credit the same to the grading correction fund. (Ord. 82-56)

15-3-1529: RESPONSIBILITY AND LIABILITY:

Any person who engages in grading is hereby declared to be totally responsible to those persons who he may endanger or, in fact, does endanger, as a result of not having or not following a grading plan or following an incorrect grading plan. (Ord. 82-56)

APPENDIX

APPENDIX J. HILLSIDE OVERLAY MAP



CITY OF COLORADO SPRINGS

HILLSIDE OVERLAY MAP

08 May 00

LEGEND

- AREAS OUTSIDE CITY LIMITS
- 6327 PAGE NUMBER
- SECTION CORNER
- AREAS WITH HILLSIDE OVERLAY

North

HILLSIDE OVERLAY MAP

CITY PLANNING
DEVELOPMENT REVIEW AND PLANNING DATA SYSTEMS
Post Office Box 1575 Colorado Springs, CO 80901

The Official Zoning Map of the City is maintained in the Development Services Division and is available for inspection during regular business hours. Please be advised that all copies of the Official Zoning Map are hereby deemed unofficial, should not be relied upon, and may not accurately reflect current zoning districts due to zone changes after the effective date of the Official Zoning Map.

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Zoning information is current through March 31, 2000.

APPENDIX K. SELECTED CITY OF COLORADO SPRINGS COMPREHENSIVE PLAN GOALS, POLICIES AND RECOMMENDATIONS

CITY COMPREHENSIVE PLAN CONFORMITY

The Hillside Design Manual endeavors to implement numerous goals, objectives, policies, and recommendations of the City of Colorado Springs Comprehensive Plan, including, but not limited to the following:

Goal 5.1: Assure that the City's land development regulations provide for efficiency, compatibility, compliance, variety, flexibility, and innovation.

Policy 5.1.4: Incorporate performance standards, where appropriate, into land development regulations and criteria.

Recommendation 5.1.R4: The City should prepare performance standards and criteria for incorporation into the Zoning Ordinance. The areas for performance standards and criteria shall include:

.... F. Preservation of natural and historic features ....
.....L. Land Suitability ....

Goal 9.2: Preserve, enhance, and promote the significant features of the City's natural environment.

Policy 9.2.1: In areas where both controlled development and preservation are possible, retain significant natural features in private ownership and protect them as part of a development plan review. Land suitability studies shall be required prior to the approval of development in these areas....

Recommendation 9.2.R2: The City should establish design guidelines for those preservation areas that could be developed without harm to the significant natural features."

Goal 9.4: Protect the environment from existing and potentially harmful conditions and activities.

Policy 9.4.3: Carefully review development in suspected natural hazard areas. Land suitability studies may be required prior to the approval of development in these areas in order to avoid potential hazards. The land development review process is the appropriate vehicle for the earliest possible identification of all environmentally sensitive land features. Site development plans should contain specific methods for handling limited development, or for maintaining environmentally sensitive land features.

Goal 9.5: Preserve. promote and enlarge the urban forest to enhance air quality, noise abatement, wildlife habitat, community aesthetics, and general quality of life. The urban forest includes all the tree and shrubbery on public or private property within the City.

Policy 9.5.3: Promote public and private tree planting, replacement and preservation programs to sustain and expand the urban forest.

Recommendation 9.5.R.1: The City should substantially increase the number of public and private trees in ten years.

Goal 16.1: Promote the application of urban design considerations which define and enhance the City's unique character.

> *Policy 16.1.1:* Enhance and strengthen the overall image of the City by identifying its unique characteristics, promoting the urban design qualities of specifically designated areas, and defining unifying design elements within the community.
>
> > *Recommendation 16.1.R2*: The City should initiate a process to identify unique areas of the community based on physical features and the character of existing development, and should examine methods to protect, preserve, and promote those areas.
> >
> > *Recommendation 16.1.R6*: The City should use the results of the Natural Features Inventory to identify significant landforms and develop appropriate design guidelines to preserve the physical character of those features.

Goal 16.4: Ensure the continued protection, availability and accessibility of those distinctive natural, archaeological, paleontological and historic features which contribute to and reflect the City's character and heritage.

> *Policy 16.4.1*: Ensure that any development of the City's mountain backdrop and significant landforms such as ridgelines is conducted in a manner which protects the physical character of those features.
>
> *Policy 16.4.2:* Preserve and provide appropriate access to the existing landscape, archeological, paleontological and historic features of the City through sensitive development and construction practices, and determination of preferred ownership."