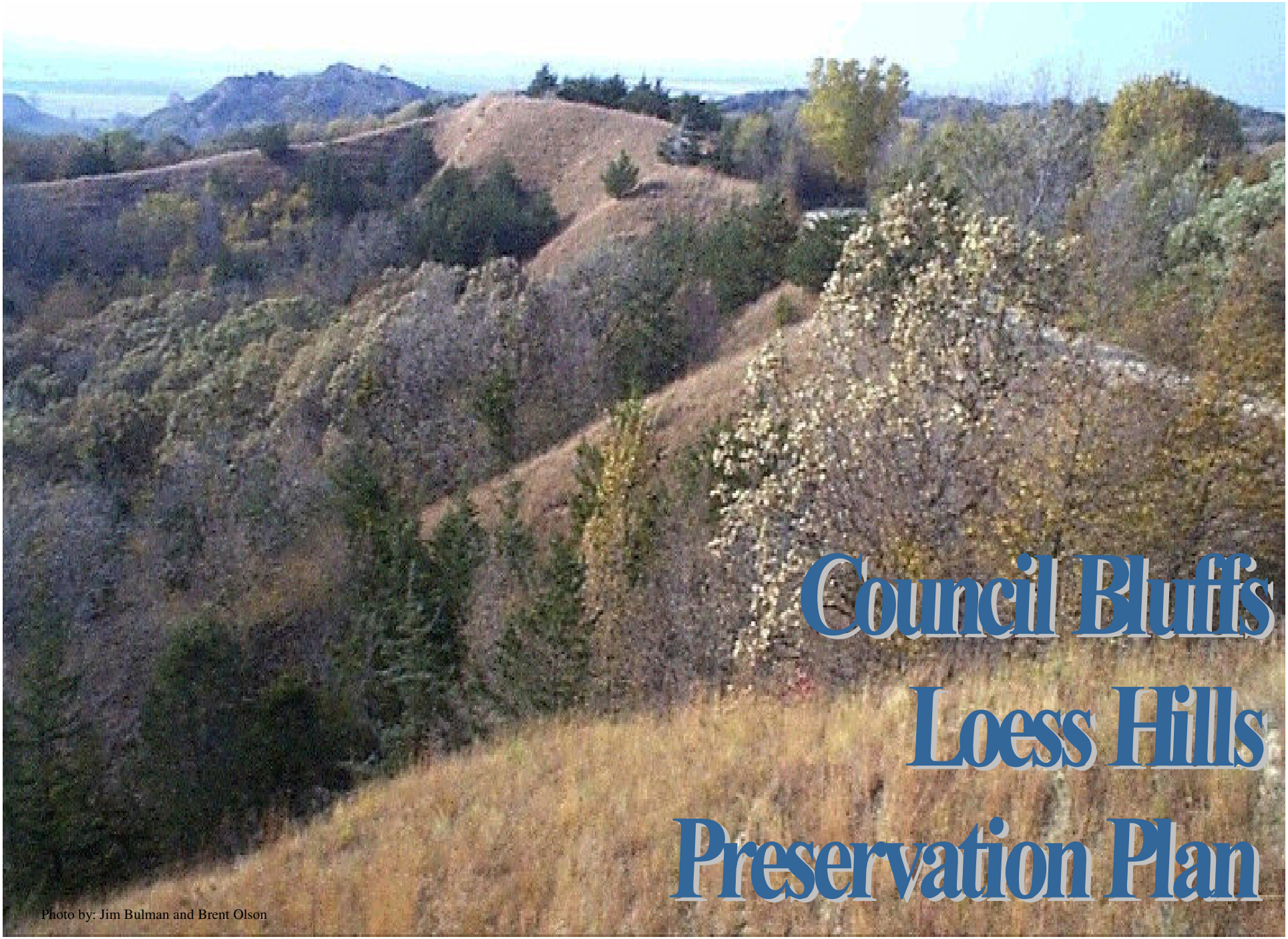

Council Bluffs Loess Hills Preservation Plan

Photo by: Jim Bulman and Brent Olson

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TABLE OF CONTENTS

INTRODUCTION **3**

PRESERVATION AREAS

BIG LAKE PARK AND NORTH 8TH STREET AREA 5
SOUTH SHERWOOD DRIVE AND COLLEGE ROAD AREA 6
FAIRMOUNT PARK AREA 7
HARRY LANGDON AND WOODBURY AVENUE AREA 8
IOWA SCHOOL FOR THE DEAF AREA 9

PLAN INTENT AND PROCESS **10**

INTENT OF THE PLAN 10

PLANNING PROCESS **10**

GOALS AND OBJECTIVES **13**

LAND USE AND ZONING 16
SUBDIVISION AND DEVELOPMENT 18
PROPERTY ACQUISITION AND CONSERVATION EASEMENTS 20
CITY DEVELOPMENT POLICIES 22
PUBLIC/PRIVATE PARTNERSHIPS 23

CONCLUSION **26**

Introduction

In 1996, discussions were initiated on possible methods for the preservation of the Loess Hills. These discussions were in response to numerous citizen comments and concerns relating to development, grading, and other actions that damage Loess Hills resources within the community. One of the first results of these discussions was the development of a position statement, which stated "the Loess Hills are a valuable asset for the City of Council Bluffs. Tourism, recreation, and development are activities of importance to the City that make use of resources in the Loess Hills. The Loess Hills possess certain and significant characteristics, including natural scenic beauty, that require management of activities in this region to be different than other areas of the City. Actions taken by the City of Council Bluffs that impact the Loess Hills should provide for a balance between development activities and protection of the natural scenic beauty in order to benefit all the residents of the community." This position statement has been utilized as the basis for developing this plan.

In addition to the development of a position statement, several recommendations were developed. The first recommendation was to complete a comprehensive inventory of the undisturbed, natural areas and areas in need of restoration to more natural condition within the Loess Hills. The purpose of this recommendation was to determine the amount of Loess Hills resources that exist within the community and to develop preservation priorities.

With the assistance of Golden Hills RC & D, the City completed an inventory of the Loess Hills. This task involved several steps, which led to the development of an initial inventory. First, all developed areas, parks, cemeteries, archeological and native areas were identified. Based on the information collected in this phase, it was determined that 465 acres of land were devoted to City parks and cemeteries in the Loess Hills region. The second phase involved identification of all undeveloped areas within the community. These undeveloped areas were exclusive of parks, public property, and cemeteries. Fifty-one parcels of varying sizes were identified. Based on the information collected, a total of 3,500 acres of undeveloped property existed in the Loess Hills region of Council Bluffs. Sizable portions of these areas were determined to be developable. In addition, the identified areas are not confined to one particular area of the community making it difficult to prioritize preservation areas. To assist in the prioritization of areas, information on soils and slope was examined. Four categories were established based on the development potential of the property. These included less than 5%, 6% to 14%, 15% to 25%, and greater than 25% slopes. Areas with 0% to 14% slopes were considered to have limited to moderate constraints of development. Areas with slopes in excess of 15% were considered developable with moderate to significant grading for development. Areas with slopes in excess of 25% are generally considered undevelopable without significant grading and/or excavation.

Based on the size of undeveloped areas, slope and soils information, utility availability, and visibility, five areas were determined to be the highest priority for preservation. These areas included:

Big Lake Park and North 8th Street Area
Sherwood Drive and College Road Area
Fairmount Park Area
Harry Langdon and Woodbury Avenue Area
Iowa School for the Deaf Area

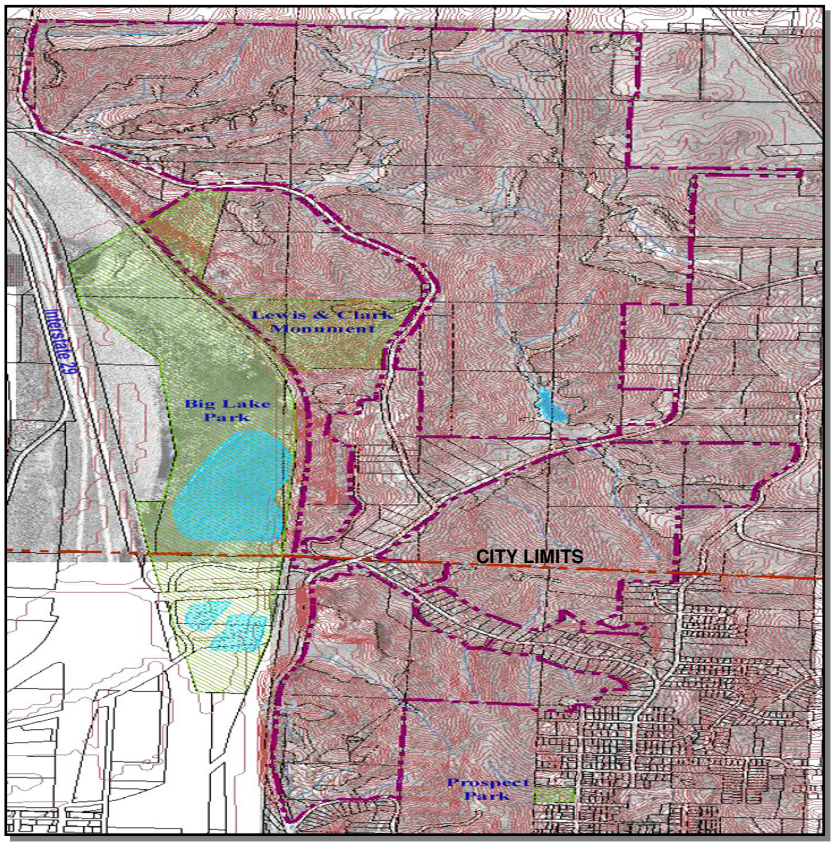
The second recommendation was to develop specific implementation strategies for managing development activities and protecting the natural scenic beauty in each of the identified areas. These strategies could include a combination of land use management tools currently available to the City, newly developed land use management tools, policies relating to development and infrastructure, public ownership and land acquisition, and the promotion of voluntary efforts by public/private entities. This plan is intended to serve as the first step towards identifying and developing specific strategies concerning the conservation of Loess Hills resources.

Preservation Areas

Big Lake Park and North 8th Street Area

Description - This area is located in the extreme northwestern portion of the City generally east and north of Big Lake Park. The area is generally bounded by Big Lake Park and the wetlands on the west; the Sternhill Park neighborhood on the south and Grand Avenue on the east. The area extends approximately 1.8 miles north of the city limits into Pottawattamie County. This area is illustrated below.

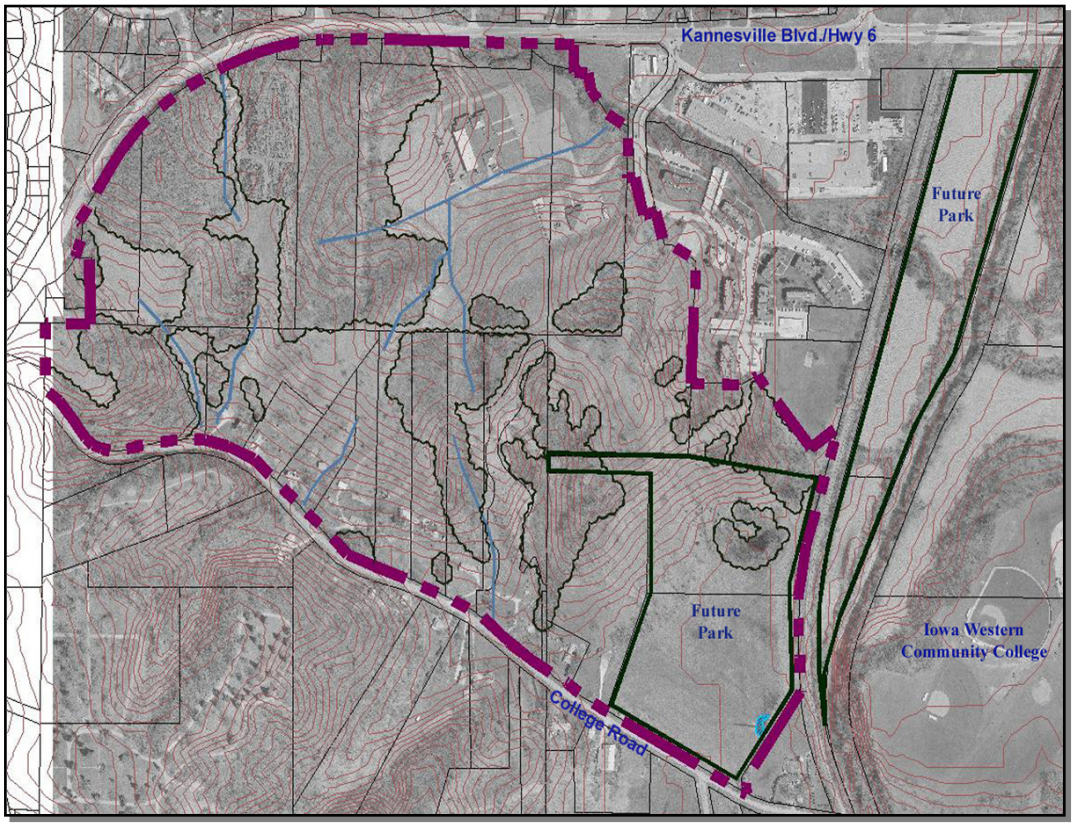
Characteristics - The area is highly scenic and affords long viewsheds due to its location on the western edge of the loess hills formation. The majority of the area is highly visible from Interstate 29 and this natural viewshed should be protected. This landform could be considered one of the premier formations of the landscape type. The area is heavily vegetated with native trees and grasses. Built land uses are low in density. The area is generally not served by utilities, especially in the northern limits. Given the availability of utilities and rough terrain, the developability of the area is limited.



South Sherwood Drive and College Road Area

Description - This area is located in the north central portion of the city. The area is generally bounded by Kanesville Boulevard/Highway 6 on the north and west; Mosquito Creek on the east; and College Road on the south/west. This area is illustrated below.

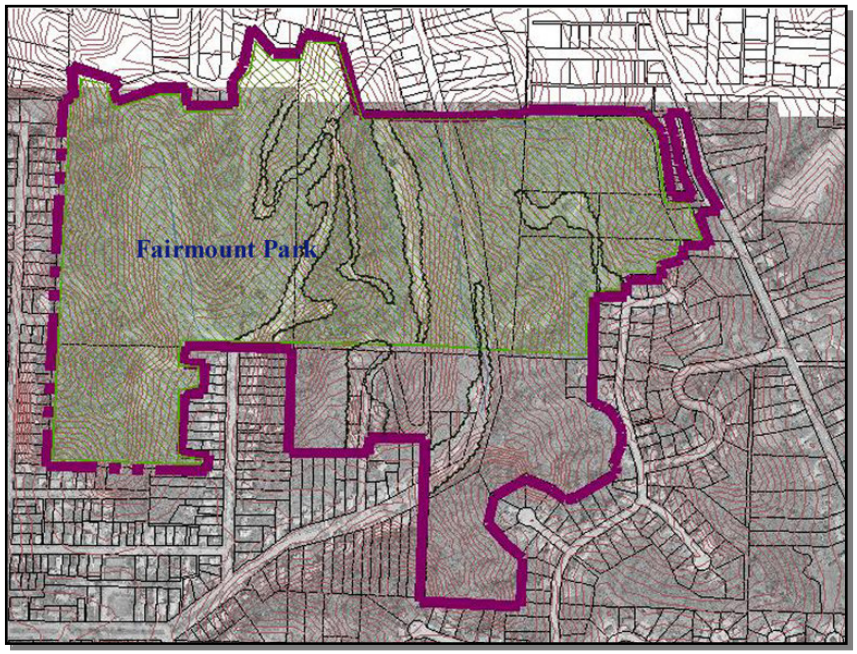
Characteristics - The area has a diversity of landscape types from the riparian conditions along Mosquito Creek to the heavily wooded uplands along Kanesville Boulevard. The southern portion of the site contains higher elevations in rather dramatic landforms. This area is proposed as a city park in the Park System Master Plan. The area is primarily oriented towards the south. The preservation of these views from the south towards this area are particularly important. Additionally, the heavily timbered upland along Kanesville Boulevard / Highway 6 adds significantly to the beauty of the entrance to the city and should be preserved. Adjacent land uses are vary from low density single family acreage's on the south to high density multi-family on the north. Utilities are generally available making areas adjacent to the City's street system moderately developable.



Fairmount Park Area

Description - This area generally includes all of Fairmount Park and the open area to the south and east. Graham Avenue divides the park and area. This area is illustrated below.

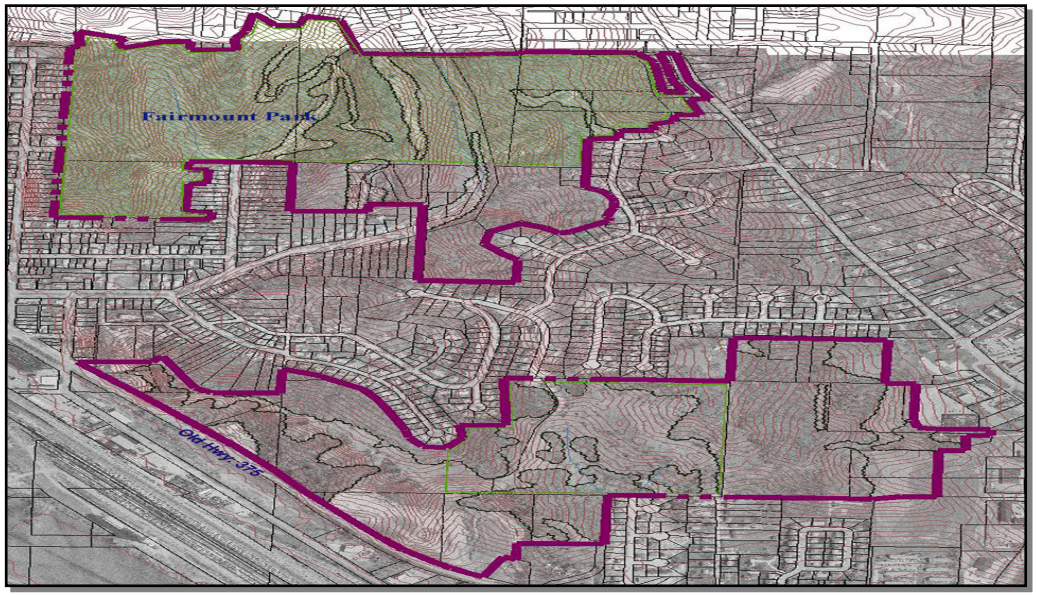
Characteristics - The area has extremely diverse landscape characteristics. High ridges provide scenic viewpoints and valley plateaus provide passive open space to park users. The park is rich in history as being Council Bluff's signature park at the turn of the century. Preservation of the cultural and natural resources of this park area is paramount. The area is surrounded by established single family neighborhoods. A majority of the area is publicly owned. However, properties located along Graham Avenue in the east and southeast portions are privately owned. Although utilities are generally available, the terrain and the small size of parcels significantly limit the developability of the area.



Harry Langdon and Woodbury Avenue Area

Description -This area generally includes the tract of land commonly referred to as the "Vincent Property". The area is bounded by Harry Langdon Boulevard on the west at the bottom of the slope; Woodbury Avenue to the south; and Madison Avenue to the east. The area is bordered by single family residential to the north and south, industrial areas to the west, and commercial development to the east. This area is illustrated below.

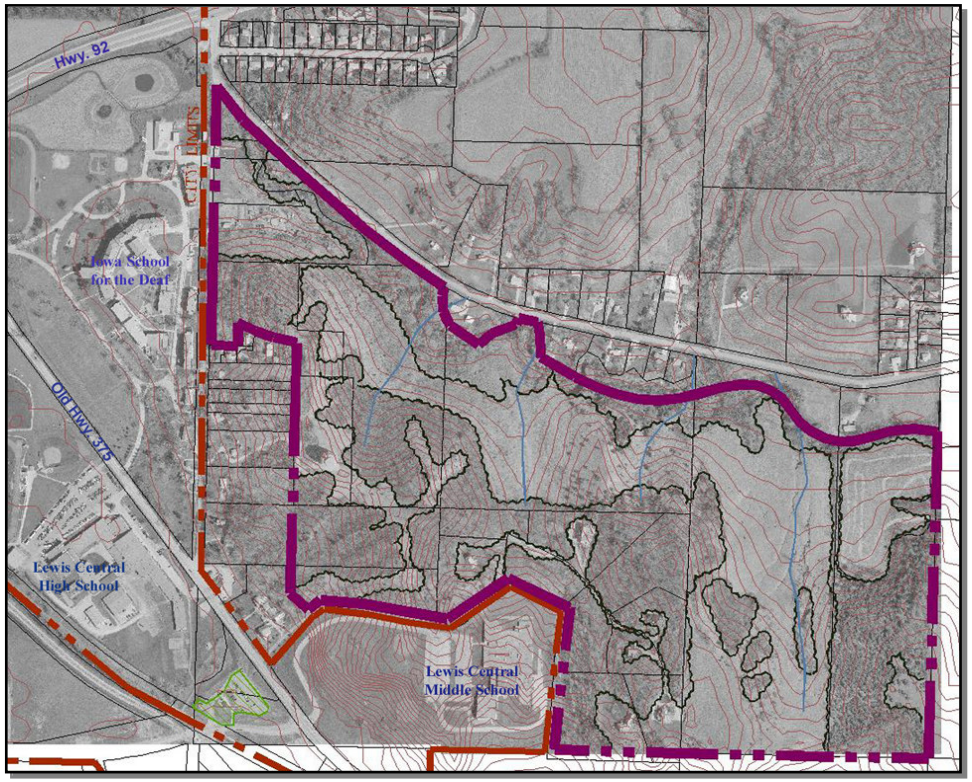
Characteristics - The land formation is unique in that it is formed by a high prairie plateau. Vegetation is almost exclusively native grassland. The area is highly scenic and affords long viewsheds due to its location on the western edge of the loess hills formation. The area is highly visible from Interstates 29 and 80. This natural viewshed should be protected. Residential development abuts the property to the north and the south. Due to its natural and scenic resources, the area is proposed as a public use area in the Park System Master Plan. The area is difficult to access. This difficulty, combined with terrain limits the developability of the area.



Iowa School for the Deaf Area

Description - This area generally bounded by Lewis Central Middle School on the south; the Iowa School for the Deaf on the west; and State Orchard Road on the north; the eastern limit is approximately on the section line one mile east of ISD. The area is located entirely outside of the existing City limits. The area is illustrated below.

Characteristics - The area consists of gently rolling hills with varied topographic features. Upland wooded areas dominate the western portions of the area. A broad grassed swale borders the eastern edge of the area. Gentle north facing slopes are highly visible from Concord Loop, Highway 375, and Interstate 29 creating a scenic landscape setting. Low density residential development is located to the north of the area along Concord Loop. Utilities are generally not available for development. Little Pony Creek on the north boundary limits access to the area. This lack of access to the area, the unavailability of utilities, and terrain significantly limit the developability of the area.



Plan Intent and Process

Intent of the Plan

These Loess Hills areas are characterized by steep slopes, vegetation, drainage, unique geologic conditions, and other physical factors which, if disturbed for the purpose of development, can cause physical damage to property and disrupt the fragile ecosystem. Disturbance of this unique landscape form can further destroy the aesthetic qualities of the Loess Hills and, over time the community identity. Therefore, the development of such areas and adjacent land requires special care on the part of the public and private sector. The intent of this Plan therefore is as follows:

- The preservation of natural features, wildlife habitat and open space.
- The retention of natural topographic features such as drainage channels, streams, ridge lines, vistas, trees and other natural plant formations.
- The preservation and enhancement of visual and environmental quality by use of natural vegetation and the prohibition of excessive excavation and terracing.
- The protection of the public from natural hazards of storm water runoff and erosion by requiring drainage facilities and the minimal removal of natural vegetation.
- The preservation of public access to hillside areas.
- The encouragement of a variety of development designs and concepts that are compatible with the natural terrain of the sensitive areas and will preserve open space and natural landscape.

Planning Process

On March 1, 2000, the City submitted an application for grant funding from the Loess Hills Alliance to complete a preservation plan. The Alliance approved this application. On June 12, 2000, the Council Bluffs City Council adopted Resolution No. 00-148, which authorized the execution of a contract with the Alliance. Subsequent to this action, the City retained the services of Ciaccio Dennell Group to assist in the preparation of a preservation plan. After the creation of a work committee, the first action was to confirm the recommended preservation areas, which were previously recommended. Although some members of the committee believed that preservation activities should apply to all Loess Hills resources within the community, it was determined that the five areas presented were the most visible and important resources. These areas are the focus of this preservation plan. However, many

of the tools proposed in this plan could be utilized throughout the community and additional areas could be identified in the future. After defining the scope of the plan and the committee developed overall goals and objectives. Upon completion of these activities, information was collected on the five areas in the community. This information included soils and slope data, erosion, developability, infrastructure, vegetation, natural features, land use, zoning, and property ownership. This information was consolidated in a series of maps, which depicted the existing conditions of the five areas. Based on this information, proposed preservation strategies and actions were developed by the consultant, the Community Development Department, and committee members. Preservation strategies included land use and subdivision controls, preservation overlay districts, grading requirements, property acquisition, City development policies, and public/private partnerships. These strategies and actions are outlined in subsequent sections of this plan.

The plan itself presents a program designed to identify and develop actions and policies for preservation. This plan is designed to serve as a guide for community actions relating to the preservation of Loess Hills. As such, the proposals and recommendations contained in the plan need to be implemented in order for the plan to be of value to the City and its residents.

The following steps were taken in analyzing each preservation area:

Step #1 Identified the different sensitive lands to protect based upon a physical inventory characteristics :

Vegetation
Topography
Soils
Views
Wildlife
Erosion
Developability
Infrastructure

Step #2 Determined the proper balance between preservation and development for the different areas identified.

a) Total Preservation (no development or grading)
City Acquisition
Conservation Easements

Mitigation of Disturbed Sites
Other Tools

b) Combined preservation with controlled development.
Cluster development
Practicality of development controls
Character of development

c) Total Development
Current regulations

Step #3 Created management solutions and guidelines for each development/preservation option identified.
Site plan review guidelines
Educate staff of environmentally sensitive areas
Adopt development guidelines into the ordinance
Grading requirements and limitations
Application requirements to include physical information of the site
Appropriate land use techniques.

Step #4 Adopt a City of Council Bluffs map that clearly depicts the sensitive natural areas.

Goals and Objectives

An important aspect of this planning process is the development of specific goals and objectives to provide local administrators direction in the management and overall implementation. In essence, the goals and objectives are the most fundamental elements of the plan; the premise upon which all other elements of the plan must relate. Goals are broad statements, identifying the state of condition the citizenry wishes the primary components of the planning area to be or evolve into within a given time. A review of the 1994 Council Bluffs Comprehensive Plan finds several references concerning the development and preservation of the Loess Hills. These goals and objectives are listed in the following narrative. In addition to these goals and objectives, the planning committee identified several additional objectives to be included. These objectives are intended to supplement those contained in 1994 Plan and are listed in italic in the following narrative.

Goal 1 – Provide opportunities for development in an orderly, efficient and environmentally sound manner.

Objectives:

Promote the conservation of the Loess Hills.

To provide standards that reflect the diverse circumstances and interests of individual landowners and the individual characteristics of their properties.

To provide developers and City staff with the proper guidance to successfully accomplish the preservation and conservation of Loess Hills resources.

To promote the preservation of land in specific identified areas with unique topographic and natural features.

To conserve land in those areas containing sensitive natural features such as woodlands, prairies, steep slopes, and unique vegetation.

Goal 2 – Establish and maintain land use development patterns and densities in Council Bluffs that conform to the desires and needs of the residents and emphasize improved quality of development and livability for the residents of the community.

Objectives:

Ensure that adequate open and recreation space is maintained.

Identify areas to be developed for public parks and recreational uses.

To encourage the interconnection of preserved areas with parks, open areas, and other preserved areas.

Goal 3 - Encourage compatible adjacent land uses through regulations suited to the unique characteristic and location of each use.

Objectives:

Facilitate the flexible and orderly development of mixed residential uses that are environmentally sound with regard to topography.

To provide neighborhood amenities around preserved areas which provide a strong quality of life identity.

To create developments that minimize the visual impact upon the Loess Hills scenic views as observed throughout the community.

To create neighborhoods with direct visual and access to passive use and preserved areas.

Goal 4 – Develop appropriate regulations to balance the need for development with the environmental concerns of the Loess Hills Environs.

Objectives:

Develop subdivision procedures to accommodate areas that have not been developed due to technical and topographic limitations.

Implement appropriate regulations or procedures to preserve highly visible areas of the Loess Hills.

To prevent physical damage to public and private property that may result from the disturbance of sensitive natural features.

To provide design flexibility for development, including the siting of infrastructure, that creates designs that are compatible with the natural terrain and conserves natural areas within the development.

To reduce erosion and sedimentation by the retention of existing vegetation and the minimization of development on steep slopes.

Preservation Strategy

Land Use and Zoning

Regulations to control development, grading, and filing activities are necessary and should discourage the excavation of the Loess Hills. Zoning regulations and land use classifications should be examined in an effort to restrict the density of development and excavation. Site development requirements should be prepared and adopted for larger projects were subdivision is not involved. Another option is the development of an overlay district to regulate development on environmentally sensitive areas. Further through subdivision procedures, the development of the Loess Hills with steep slopes should equally be discouraged. Grading and erosions control regulations are necessary to control the location and effects of grading operations.

Land Use and Zoning – Zoning is the division of a municipality into districts for the purpose of regulating the use of private land. These zones are shown on a map. Within each of these districts the text of the zoning ordinance specifics the permitted uses, the bulk of buildings, the required setbacks, necessary off-street parking, and other prerequisites to obtaining permission to develop. In essences, the use of zoning is the primary method used to guide physical development of the community as expressed in a Comprehensive or Master Plan. The most recent Comprehensive Plan for Council Bluffs was prepared and adopted in 1994. The 1994 Comprehensive Plan contains many elements of which are devoted to existing and future land use. The development of the future land use is based many factors, which include existing developed areas, neighborhoods, utility availability, and land suitability. This plan identifies five areas within the community, which have been identified for conservation and preservation. These areas were selected based on their visibility, natural and topographic qualities, availability of utilities and developability. Each of these areas are designated for residential estates, single family, and multi-family development by the future land use element of the Comprehensive Plan. Land use designations and zoning which permit low density development or encourage open space should be encourage, with higher density development discouraged.

In addition to controlling future land use, zoning ordinances can be used to control negative externalities of land uses and improve the design of developments. The indiscriminate grading or mining of Loess Hills resources, which are not tied to a specific development activity or objective, should be restricted or prohibited. Excavation and mining activities have become the source of numerous neighborhood complaints. The occurrence of dust, noise, street conditions, erosion, and loss of viewshed are of primary concerns. Development design, which maintains sensitive environments and slopes, should be encouraged. Conservation development techniques, which maintain a project's overall development density by permitting smaller lots in exchange for

conserved open space, should be used. Generally, development should occur along fingers of buildable areas, avoiding heavily wooded and erodible slopes. City staff should work with the development community to promote the use and application of these techniques. The City also has areas, which are zoned and ready for higher density development. As a result, only the building permit review process is required prior to construction. Recognizing the impact of some of these projects, additional regulatory controls are necessary on larger development projects that are appropriately zoned and do not require subdivision or planned development review.

Land Use and Zoning Recommendations

- The City should amend the future land use map contained in the 1994 Comprehensive Plan by designating the five identified areas as residential estates, single family, or open space.

- The City should rezone properties located within the five preservation areas, which are currently zoned for higher density residential or commercial use.

- The City should prepare and adopt site design requirements for development projects of 5 acres or more which do not involve subdivision, planned residential, or planned commercial review procedures.

- The definition of extraction activities should be defined as a specific use within the zoning ordinance text and listed as a prohibited use in all open space and residential zoning districts.

- Coordinate future land use plans, subdivision review and other activities with Pottawattamie County Planning in regard to sensitive environmental areas.

- Implement a City-wide geographic information system as a land management tool to identify sensitive areas prior to development and coordinate that information with Pottawattamie County, NRD and Golden Hills RC & D for accuracy.

Preservation Overlay District – Overlay districts within the zoning ordinance are another method to apply controls on development located in unique areas that are environmentally sensitive such as the Loess Hills. Such districts are used to protect natural, topographic, and environmental resources that are of importance to the community. Such a district can help safeguard the

Loess Hills resources and serve cultural educational and recreation ends. Overlay districts continue to allow land uses and development, which are permitted in the underlying zoning district. However, an overlay district gives the City an involvement in the development decisions for environmentally sensitive areas, which previously did not exist. With this involvement, the City can play a substantial role in resource protection by controlling some of the externalities of the development by reducing public hazards, protecting adjoining property owners, controlling erosion and reducing future governmental costs from environmental degradation.

Preservation Overly District Recommendations

- The City should adopt a Preservation Overlay Ordinance to provide further control of development in the five identified areas (See attached model ordinance in Exhibit A).

Subdivision and Development

Subdivision Regulations – Land subdivision is the act of splitting a tract of land into separate parcels. The usual purpose of subdividing land is to permit the transfer of the subdivided pieces to someone other than the owner of the original parcel. Most often, subdivision is done to permit housing, commercial or industrial development projects. While zoning applies to individual lots and uses, subdivision regulations govern the process by which lots are created. The City's current regulations seek to assure that subdivisions are appropriately related to their surroundings and that the necessary supporting infrastructure is provided. In addition, the regulations are intended to assure that the subdivision is related to its own site through standards on lot sizes, street widths, length of blocks and lot layout. Although during the last 30 years the City has been successful in requiring the appropriate infrastructure within subdivisions, it has not fully recognized the operational and service costs of developing in the Loess Hills. The topography of land areas in eastern Council Bluffs restricts conventional subdivision design and development. Landforms cause development to naturally cluster in buildable areas surrounded by steeper slopes. While this development pattern is desirable and conserves portions of the Loess Hills, it prevents the interconnection of subdivisions and limits overall densities. This in turn spreads development out farther and increases infrastructure and service costs by reducing the number of lots that can be served by utilities. As a result, Council Bluffs needs to identify areas and direct development to these areas where development densities can better support infrastructure and service costs.

The City's current subdivision regulations also require that no land shall be subdivided which is found to be unsuitable for development due to flooding, ponding, poor or inadequate drainage, adverse soil conditions, geologic formations or topography until such time that these conditions causing the unsuitability are corrected. Requirements on what is unsuitable land needs to the better defined within the subdivision regulations. Corrective actions such as grading to make land suitable for development need to be improved to address the relationship of the subdivision development with surrounding properties. In essence, the City needs to limit the amount and control the effects of the corrective action, which are necessary to accommodate development. More specific grading requirements should be added to subdivision design standards. The subdivision ordinance also requires that natural features that add aesthetic value to the development and the community, such as trees, natural streams, hilltops, and scenic views should be preserve wherever reasonable possible. The requirements on preserving natural features need to be revised to better guide local planners and elected officials in the review of subdivisions developments.

In situations where development is suitable, the integrity of the natural woodland, prairie and/or waterway corridors adjacent to a roadway or within the long range view shed may be retained by protecting a fifty foot wide buffer strip to the natural corridor adjacent to the roadway. The combination of other tools may be utilized to protect the buffer strip such as a conservation easement and allowing higher densities in development to compensate for not disturbing the fifty foot perimeter area.

Subdivision Regulation Recommendations

- The City should prepare and adopt minimum requirements for subdivisions that include specific language on grading, erosion, and acceptable final grades.

- The City should revise the definition of unsuitable land to better guide planners and elected officials in identifying land that is suitable for development.

- Encourage dedication of conservation easements of outlots for preserving recreational development.

Grading Regulations – Grading is currently regulated through Appendix 33.70 of the Uniform Building Code. These regulations require a grading permit on any activity, which involves the movement of 50 or more cubic yards of soil. A grading plan prepared by an engineer is required on projects which involve the movement of 5,000 or more cubic yards.

Grading Regulation Recommendations

- The City should apply for Section 319 funding to prepare a storm water management and erosion control plan. The funding should provide for educational programs on erosion control techniques.

- Recognizing the unique characteristics of the Loess Hills and the topography of Council Bluffs, the City should prepare and adopt improved grading regulations, which are more specific to local conditions and reduce the externalities of grading operations.

- The City should adopt a policy prohibiting the extraction of soil from the five identified areas.

- Although not a preservation technique, mitigation is best suited to be categorized with preservation since the remedial actions should be guided toward compliance with the preservation and development guidelines established here within. Requests for expansion of existing landfills, dirt mining or other land uses within the overlay areas should not be allowed and a mitigation plan required within 6 months of closure.

Property Acquisition and Conservation Easements

Property Acquisition and Donation – The acquisition and/or donation of property to a public entity may be the best conservation strategy to preserve Loess Hills resources. Numerous federal, state, foundation, and local funding sources are available for the acquisition for the purposes of conservation. In addition to conservation, many of the areas identified in this plan could be utilized for passive recreation and open space.

The donation of land for conservation purposes is also one of the greatest legacies a person can leave to future generations. A donation of land to a public entity or land trust releases the owner from the responsibility of managing the land and can provide substantial income tax deductions and estate tax benefits. Most important, if the land is donated because of its conservation value, it will be protected.

Another preservation technique is to purchase land at fair market value through condemnation of key areas and retain ownership for the public as a passive use park. The use as park land should receive public review and input to insure the natural integrity of the land is preserved.

Policies

- The City should identify key parcels of land for preservation or passive recreation use and develop a acquisition plan utilizing federal, state, foundation, and local funds.

- The City should work with the Loess Hills Alliance, Iowa Natural Heritage Foundation, and the Loess Hills Preservation Society to approach landowners concerning donation of their property for conservation purposes.

Conservation Easements - Conservation easements have been utilized to protect millions of acres of open space across the country. The use of conservation easements can permanently protect private land without obtaining public ownership. A conservation easement is a legal agreement between a landowner and a land trust that permanently limits the use of the land in order to protect its conservation values. It allows private property owners to continue to own the land, sell it or pass it to an heir. However, when a conservation easement to a land trust is granted, the property owner gives up some of the rights associated with the land. For example, a property owner may give up the right to build another residence, while retaining the right to grow crops. Future owners also will be bound by the easement's terms, and the land trust is responsible for making sure the easement's terms are followed. Conservation easements are flexible land protection tools. An easement on property containing rare landforms or habitat may prohibit any development. An easement can allow appropriate development and can permit some use of the land. It may apply to just a portion of the property, and need not require public access. In short, an easement must protect the land 's conservation values, but it can also be fashioned to meet the financial and personal needs of the landowner. A conservation easement donation that meets federal tax code requirements (that provides a public benefit by permanently protecting important conservation resources) can qualify as a tax deductible charitable donation. For income tax purposes, the value of the donation is the difference between the land's conservation value without the easement. Perhaps the most important, a conservation easement can be essential for passing land on the next generation. By removing the land's development potential, the easement lowers the market value, which in turn lowers estate tax. Whether the easement is donated during the life of by will, it can make a critical difference in the heir's ability to keep the land intact.

Iowa Law allows municipalities to place a conservation easement onto an identified tract of land. The purpose of a conservation easement is to protect the piece of land in its natural state and allow only uses that will be sensitive to the land. Conservation easements are a flexible tool used in protecting land and may be utilized by the City of Council Bluffs by:

> The City purchases and places an easement on property with defined terms and conditions which identify the sensitive features to protect, stipulate the lands protected status and clearly identifies the uses allowed.
>
> The City places a conservation easement on a piece of property owned by a private landowner. The landowner retains access and sensitive use of the land as stipulated within the easement. The protected status is defined and gives allowable uses.
>
> The City places a conservation easement on existing owned land or park land, that may be near an area of development pressure. The easement removes the temptation of political pressure for allowing development that may adversely disturb the land.

Policies

- The City should work with the Loess Hills Alliance, Iowa Natural Heritage Foundation, and the Loess Hills Preservation Society to approach landowners concerning acquisition of conservation easements.
- Through the subdivision and rezoning process, the City should obtained conservation easements on properties not required for the development.

City Development Policies

Development Programs and Incentives - In addition to regulatory methods, the City can direct development through capital expenditures for roads and utilities, tax assistance, or direct funding of development by existing programs. These include Capital Improvement Program expenditures, Urban Renewal, Urban Revitalization, and Community Development Block Grants, HOME

Partnership and other assistance programs. The use of incentives to encourage development, which is inconsistent with the purposes of this plan, should be discouraged in the identified preservation areas.

Development Program and Incentive Policies

- The City should prohibit the use of Urban Renewal, Urban Revitalization, and other development programs for projects locating in the identified preservation areas.

- Through the Capital Improvement Program, the City should discourage roadway and utility extensions to serve development in the five identified preservation areas.

- The City should prioritize properties for open space preservation and passive recreational uses within the five preservation areas and continually identify and seek funding for acquisition.

Public/Private Partnerships

Conservation Organizations - Conservation organizations, such as the Loess Hills Preservation Society and Loess Hills Alliances, are voluntary nonprofit organizations with the goal of preservation. These organizations can be complementary to each other and to the City in implementing the goals and objectives of this plan. These efforts can include providing pertinent information, offering constructive comment, and sometimes helping in the long-term management of protected areas of the Loess Hills. These organizations must become more proactive, perhaps initiating and leading public discussions that explore positive alternatives of conservation development and broadening the understanding of the development community and residents in the conservation process. A growing number of organizations have sponsored workshop presentations at which conservation techniques are discussed and illustrated.

There is a wealth of information on the location and importance of Loess Hills resources and landowners need to be acquainted with the significance of these resources. Since nearly everybody's property is for sale at some time, it would be prudent for conservation and preservation groups to ensure landowners are aware of the existence and significance of Loess Hills resources on their properties.

Landowners also need to be informed about the different techniques that are available to help them preserve their property while still conserving most of its resources. Many landowners have or can anticipate heavy federal tax payments, which can be reduced through the donation of conservation easements or the property itself.

Title to land within subdivisions or other development may also be offered to conservation organizations. Since most developers are inclined to transfer conservation land ownership to a homeowners association that allows residents to remain in control of their neighborhood open space, local conservation organizations and land trusts should be prepared to accept such donations requiring little ongoing maintenance. Although lands with developments are not always idea places for conservation, they can offer special opportunities for building neighborhood support to conserve nearby natural areas. These areas can also be utilized for passive recreation and walking areas for neighborhood residents.

Conservation organizations can facilitate the preservation of Loess Hills resources by identify and serving funding for acquisition and maintenance of preservation areas. Conservation organizations can serve as a conduit for foundation funding which government organizations may not other wise be eligible.

Public/Private Partnership Recommendations

- The City will continue to participate in the activities of the Loess Hills Alliance.
- The Loess Hills Preservation Society should continue their advocacy and educational efforts concerning the preservation of the Loess Hills in cooperation with the City.
- The Loess Hills Preservation Society should actively seek the donation of conservation easements and properties located within the five identified areas.
- A local land trust and funding for ongoing maintenance should be established.
- The feasibility of developing environmental education or interpretive facilities similar to Fontenelle Forest or Neale Woods Nature Center should be undertaken.

Conclusion

The goals, objectives, policies, and recommendations contained in this plan are challenging. They are worthy of a community, which is concerned with balancing growth with preservation and increasing the quality of life for its residents. Continued discussion and action is necessary to achieve the goals expressed in this plan. Implementation will require dedication and commitment by both the private and public sectors.

Appendix A – City Council Resolution

RESOLUTION NO. 01-180

A RESOLUTION TO AMEND THE 1994 COMPREHENSIVE PLAN BY ADOPTING THE *COUNCIL BLUFFS LOESS HILLS PRESERVATION PLAN* AND INCORPORATING THE PLAN INTO THE DOCUMENT.

WHEREAS, the City Council adopted the 1994 Comprehensive Plan on August 22, 1994 by Resolution 94-203; and

WHEREAS, on June 12, 2000, this City Council authorized execution of a contract with the Loess Hills Alliance to complete a plan designed to identify and develop policies for preservation of the Loess Hills; and

WHEREAS, a preservation plan has been developed and the Community Development Department recommends adoption of the plan and its incorporation as an element of the 1994 Comprehensive Plan; and

WHEREAS, following public hearing on the plan, the Planning Commission recommended adoption of the *Loess Hills Preservation Plan* and its incorporation into the 1994 Comprehensive Plan; and

WHEREAS, after study and consideration, the City Council has determined that adoption of the *Loess Hills Preservation Plan* is the best interest of the City.

NOW, THEREFORE, BE IT RESOLVED

BY THE CITY COUNCIL

OF THE

CITY OF COUNCIL BLUFFS, IOWA:

That the 1994 Comprehensive Plan is amended by adopting the *Council Bluffs Loess Hills Preservation Plan*, as presented and incorporated into the document as Plan Amendment #9.

ADOPTED
AND
APPROVED: June 25, 2001

Thomas P. Hanafan Mayor

ATTEST: Olga Ramirez City Clerk

Appendix B – Recommendation Overlay District

Applicability

No building or structure may be erected, reconstructed, or structurally altered on land which is designated as a sensitive area on the zoning maps unless done so in accordance with the Loess Hills Overlay District set forth here within and all other applicable laws of the City of Council Bluffs.

No land shall be subdivided, graded, soil extracted, vegetation removed or otherwise disturbed on land which is designated as a sensitive area on the zoning maps unless done so in accordance with the Loess Hills Overlay District set forth here within and all other applicable laws of the City of Council Bluffs.

Plan Submittal Requirements

All building permit applications within the loess hills sensitive areas shall include the following information drawn to scale.

___ Survey (sealed by a licensed surveyor) of the tract of land showing property boundaries, existing grading, vegetation and unique and sensitive features as designated by this section.

____ Site plan showing the following:

- Date, scale, north arrow, title name of owner and name of person preparing the plan.
- The location and dimensions of boundary lines and easements.
- The location and size of public utilities serving the site. (This may be a separate plan.)
- The location, size, height and use of existing and proposed structures.
- The location of site improvements, including parking and loading areas, pedestrian and vehicular areas, signage, lighting (may be a separate plan), and any other proposed site improvements.
- The location of unique, sensitive, natural, and cultural features protected and disturbed.

___ Grading plan prepared by a licensed landscape architect or engineer showing the following:
- Date, scale, north arrow, title name of owner and name of person preparing the plan.
- The location of boundary lines and easements.
- Existing and proposed, final contours.
- Phasing of grading if applicable.
- Locations of borrow or disposal if applicable.

___ Erosion control plan showing the types, details and phasing of erosion techniques utilized.

___ Landscape plan prepared by a licensed landscape architect showing the following:
- Date, scale, north arrow, title name of owner and name of person preparing the plan.
- The location of boundary lines and easements.
- Preserved vegetation and proposed landscaping.
- Quantity, type and size of proposed landscaping.
- Phasing of Landscaping if applicable.
- Mitigation of disturbed natural features.

___ Storm water management plan.

___ Complete set of architectural, structural, mechanical, electrical and plumbing drawings.

___ Special permits and/or waivers as required for code compliance.

Sensitive Areas Development Options

Development Guidelines (Review current Zoning Ordinance and CB 21 for Coordination)
Subdivision Layout. **Four Step Process:**

1. ***Step One - Identify Conservation areas to be protected***
   a. Identify Primary Conservation Elements to protect and include regulatory wetlands, flood plains, steep slopes and mature tree masses and prairie remnants
   b. Identify Secondary Conservation Elements including unprotected natural and cultural elements that deserve to be protected.
   c. The remaining land results in the developable area.

2. ***Step Two - Locating the approximate house sites***
   a. For marketing and quality of life, place houses at a respectful proximity to the natural and cultural resources.
   b. Back houses up to woodlands or hedgerows for privacy.
   c. Front houses onto a central common, prairie, wetland, enjoying open and scenic views.
   d. Vary the setbacks of houses in consideration of the terrain, views and image of the neighborhood.
   e. The density of houses allowed would equal the maximum allowed per existing zoning regulations.

3. ***Step Three - Aligning Streets and Trails***
   a. Trace a logical alignment for local streets to access the homes.
   b. Trace alignments(s) for footpaths to interconnect various parts of the neighborhood, natural areas and adjacent neighborhoods and parks.

4. ***Step Four - Drawing the Lot Lines***
   a. Draw the lot lines
   b. With the preservation of common open space, the minimum lot width and size requirements are not required.

Green space. The preservation of common space within the development is critical for the success of the four step development process. The commons may be the central area of the development, perimeter boundary or any combination of the two, but in any case, it is the protected sensitive natural land. The commons is also critical in maintaining the rural character of the development. The use of several green space areas (greenlets), a greater sense of openness can be achieved.

To the most practical extent possible, green space should interconnect with other green spaces both on and off site, particularly with nearby park land and schools. Trails should be encouraged within these connecting corridors. The interconnection of natural areas also maintains wildlife habitat corridors which provide the benefit of minimizing the amount of wildlife required to access nearby food and shelter through developed areas.

Green space provides an amenity opportunity for the location of trails. The trails may be designed for passive or active recreational uses, natural interpretation, as connections to nearby schools, parks and neighborhoods and/or for use by the residents.

A proportion of green space may be best suited for shared community uses such as a playgrounds, vegetable gardens, orchards, or other agricultural related activities as allowed per the City Code.

A proportion of green space may be best suited for a public park open to all citizens, both within and outside the development boundary.

Amenities. The Loess Hills sensitive natural areas should be developed in a manner that will maintain a high quality of life in order to maintain a positive image of the City. This can be accomplished through the preservation of the best natural features on site. Additionally, this can be accomplished by maintaining a rural character to the development, through the four step site development process, and focusing the site design on pedestrian use rather than automobile.

Development shall be neighborhood focused rather than on the street. Throughout site planning and design, the automobile shall be considered a use for people to get to and from a destination and should not be the primary function designed around. The scale of the street and housing along the street shall be designed for the pedestrian at a neighborhood scale.

Site Design Guidelines

1. Grading

Within the loess hills sensitive areas, any parcel of land that disturbs 200 cubic yards of soil and/or an area larger than 1/2 acre within a 12 month period will require City review and approval prior to grading.

Grading will be allowed within the bottom 1/3 of the side slope of the loess hills landform as well as along the ridge, contingent upon the development and disturbance is set back 100 feet or greater from the edge of the top of slope. This top of slope and ridgeline should be preserved in a natural state. Grading will not be allowed within the top 2/3 of the slope or along the edge.

Within the developable areas of the slope, up to100% of the development may located on slopes 14% or less, up to 50% may be located on slopes between 15% to 20%, and no grading or development is allowed on slopes exceeding 20%. Additionally, no development shall be located on soils that are moderately or highly erodable as indicated in the current Soil Survey of Pottawattamie County, Iowa.

Developments are encouraged to balance cut and fill on-site as long as natural areas are not disturbed to borrow or spread soils. When soils are required to be hauled on or off site, the location of borrow and/or disposal shall be pre-approved by the City.

2. Erosion Control

Erosion is a dynamic force that requires the use of several techniques concurrently in order to control the migration of soil on and off site. The sensitive areas identified have been reviewed as to the best combinations of erosion control practices to prevent disturbance of protected conservation areas and adjacent properties.

When combining erosion control practices, the overriding goal is to limit the movement of water to a very short distance. This can be accomplished through the use of silt fence to limit the distance water can move during grading. Temporarily seeding exposed areas that may not be at the finished grade for a period over 14 days and protecting as the existing vegetation on site as much as possible is necessary. The goal is to not grade areas larger than 5 acres at any one time without protection, and during grading, to limit the movement of water/soil to 200' maximum between treatments.

The following outlines the erosion control practices best suitable for the Loess Hills sensitive areas:

Fabric Silt Fence: If installed properly, a silt fence may achieve 90% efficiency in reducing soil erosion. A silt fence should be installed per the attached details parallel with the contour of the slope. A silt fence should not be utilized to control erosion in channelized areas. As per the installation detail, it is imperative for proper function that the silt fence be securely anchored to the ground. Additionally, periodic maintenance is necessary to remove excess sediment if the fence is working or to correct the deficiencies if it isn't. Damaged sections must be repaired, missing or bent posts replaced, fabric repaired and other necessary corrections, as needed.

Hay Bale Silt Check: The use of hay bales should be used in channels/swales and placed perpendicular to the grade as per detail. Proper installation is necessary, in addition to periodic maintenance, for proper function of the bales.

Mulching/Erosion Control Matting: Between the months of approximately October 15 thru March 15, when the temperatures aren't conducive for the germination of temporary or permanent seeding, hydro-mulching or erosion control matting will need to be utilized. Exposed grades steeper than 3:1 should use erosion control matting rather than mulches. Even with seeding, the use of erosion control matting should be considered on all slopes for a faster germination rate and insurance against erosion until such time permanent seeding has established.

Temporary Seeding: Through the use of planting short-term vegetation on exposed areas of soil, especially on slopes, the potential for erosion is greatly reduced. The foliage will reduce the impact of raindrops and slow sheet flow, the roots will hold the soil and allow for better infiltration and the plants will absorb moisture. Temporary seeding shall apply to all graded areas that will be exposed to for a period greater than 14 days and used as a cover crop with permanent seeding when the permanent seeding won't germinated within 21 days (such as native seed mixes). The following seeding types and rates are acceptable for the loess hills sensitive areas.

Permanent Vegetative Cover: Possibly one of the best erosion control practices is the protection of the existing vegetative cover. Native grasses and herbaceous plant material have the potential to achieve 98% efficiency in reducing erosion. Because the deep root structure will keep a strong hold on the soil, the density of stems above ground slowing water and the removal of water through evapotranspiration, the protection of at least a 50' width of vegetative cover around the edge of a development has shown to be an effective filter strip preventing erosion to the adjacent property.