

ITEM #: 44
DATE: 06-14-16

COUNCIL ACTION FORM

REQUEST: **REVISED PRELIMINARY PLAT FOR HAYDEN'S CROSSING
CONSERVATION SUBDIVISION**

BACKGROUND:

The developer/land owner, Hunziker Land Development Co. LLC, proposes a revision to the approved preliminary plat for Hayden's Crossing Subdivision, a residential subdivision to be developed as single-family detached homes in the Suburban Residential Low-Density (FS-RL) zone. The Preliminary Plat for Hayden's Crossing was approved by the City Council on September 22, 2015, and included a 12-acre parcel of land (Parcel K) at 5400 Grant Avenue. The Final Plat for the original subdivision was approved by the City Council on May 10, 2016.

The revised preliminary plat includes two additional parcels of land (Parcels B and C) totaling 7.67 acres of land that abut the north boundary of the subdivision. These two parcels, located at 5440 and 5442 Grant Avenue and are owned by Hunziker Development Company LLC. The revised preliminary plat includes a total of 19.67 acres, and is located between Ada Hayden Heritage Park on the east and Grant Avenue on the west. The site is just over a ¼ mile (1,500 feet) south of 190th Street. The City annexed this land in December, 2013, and approved a rezoning request for the parcels at 5440 and 5442 Grant Avenue, from Agriculture to Suburban Residential Low Density (FS-RL), on February 9, 2016 (*See Attachment A – Location/Zoning Map*). A complete analysis of the proposed preliminary plat is included in the attached addendum.

The rezoning of the two parcels included a Master Plan (*See Attachment B - Master Plan*) and Zoning Agreement defining the general arrangement of uses and conditions for development of the site. The master plan allows for single family development and identifies conservation areas. The Zoning Agreement for 5440 and 5442 Grant Avenue states that: "1) The Developer is responsible for frontage and intersection access improvements at the time of subdivision; and, 2) There is to be a single pedestrian access from the subdivision into Ada Hayden Heritage Park at the location shown on the Master Plan." There is also a pedestrian access from the first addition of Hayden's Crossing into the park. Staff finds that the Preliminary Plat is consistent with the approved Master Plan and Zoning Agreement for density and layout.

Ames Conservation Subdivision standards are part of Chapter 23 of the Municipal Code. **The intent of the standards is to protect the quality of water in Ada Hayden Lake, protect existing surface drainage systems, promote interconnected greenways, provide commonly-owned open space and conservation areas, and protect such areas in perpetuity.** Development of this site is the second subdivision to request approval under the Conservation Subdivision standards of the *Ames Municipal Code*.

The proposed subdivision layout and supporting documents satisfactorily address the subdivision conservation and improvements standards. The improvement plans show the improvements to Grant Avenue needed for intersection improvements to serve this development and the future Rose Prairie project to the west.

The proposed Hayden's Crossing layout is designed as a loop street that will extend north and return back to Grant Avenue with development of the property now being added along the north boundary of the original subdivision. The loop street's design will ultimately be the only street connection through the neighborhood. The design exceeds block length goals of 600 foot intersections and, would exceed the 1,320 length. With the original plat there was a discussion of north/south connection at the midpoint of the development to address block length. The developer believes that a second street connection is not needed and that the loop design avoids a long cul-de-sac. The approved Final Plat for Hayden's Crossing Subdivision includes the 10-foot wide pedestrian easement for a trail rather than creating a street, this easement is shown on the revised preliminary plat between Lots 15 and 16. The revised preliminary plat continues the trail and easement through Outlot B, and between Lots 22 and 23, where it connects with Leopold Drive.

The private trail through the common area is a unique proposal by the developer in lieu of including a cross street. The Preliminary Plat shows a shared driveway, for Lots 22 and 23, as well as a shared driveway for Lots 15 and 16, as the link to a 10-foot stormwater maintenance access and trail facility. The Preliminary Plat shows a five-foot walk, separate from the driveways, but running parallel to the driveway and connecting to the street and sidewalks (*See Attachment G - Street Tree and Landscaping Plan*). The City Council approved this configuration of the shared driveway and separate sidewalk as part of the approval of the original Preliminary Plat.

Planning and Zoning Commission Recommendation. On June 1, 2016, the Commission considered the Revised Preliminary Plat for Hayden's Crossing. The Commission reviewed the revised subdivision plat for compliance with the adopted subdivision regulations. Justin Dodge, representing the Developer for the project, explained that the platting process requires a second phase of the subdivision, since the Developer has acquired the two additional parcels adjacent to the north boundary of the previously approved Preliminary Plat .

There were no public comments. The Commission recommended approval of the Revised Preliminary Plat for Hayden's Crossing by a vote of 6 to 0.

ALTERNATIVES:

1. The City Council can approve the revised Preliminary Plat for Hayden's Crossing at 5440, 5442 and 5400 Grant Avenue.
2. The City Council can approve the Preliminary Plat for Hayden's Crossing at 5442, 5440 and 5400 Grant Avenue, with modified conditions.

3. The City Council can deny the Preliminary Plat for Hayden's Crossing at 5442, 5440 and 5400 Grant Avenue, by finding that the preliminary plat does not meet the requirements of Section 23.302(6)(a) or Section 23.603 of the Ames Municipal Code and by setting forth its reasons for disapproving or modifying the proposed preliminary plat as required by Section 23.302(6)(b) of the Ames Municipal Code. Code sections are found in *Attachment I – Applicable Subdivision Law*.
4. The City Council can defer action on this request to no later than July 14, 2016, and refer it back to City staff and/or the applicant for additional information.

CITY MANAGER'S RECOMMENDED ACTION:

The revised Hayden's Crossing preliminary plat demonstrates how the development will carry out the low-impact development policies and techniques required by the Conservation Subdivision and will thus protect the quality of surface water flowing into Ada Hayden Lake.

The Hayden's Crossing Subdivision will carry the native landscaping characteristic of the park into the residential area up to more than 80% of the lots. It will include an integrated pedestrian and bicycle path system through and connected to the park's system. The revised plat now includes sites for a total of 43 new homes in the community.

The revised preliminary plat for Hayden's Crossing is consistent with the approved master plan and zoning agreement in terms of general distribution of homes and the density of development. The access points, circulation system, conservation areas and open space are also consistent with the Master Plan.

Therefore, it is the recommendation of the City Manager that the City Council act in accordance with Alternative #1 recommending approval to the City Council.

ADDENDUM

Project Description. The revised Preliminary Plat (*See Attachment F - Proposed Improvements*) includes 43 lots for single-family detached homes and additional outlots for open space and future development. Individual home lots range in size from 7,220 square feet to 21,471 square feet. All lots meet minimum size requirements, and frontage requirements for the FS-RL zoning district.

There are three outlots in the proposed subdivision, which total 5.38 acres. Outlots A and B, will function as open space with a conservation easement placed over each outlot. On the Final Plat, Outlots A and B include public utility and surface water flowage easements over each entire outlot, and Outlot B serves as the location for storm water conveyance, treatment and detention, with a storm sewer easement over the entire outlot. Outlot A also serves as open and natural space for the development with selected trees that are in good condition to be preserved a part of the amenities of this subdivision (*See Attachment H – Natural Resource Inventory*). Outlot A also includes the trail connections to Ada Hayden Park as was agreed upon with the rezoning Master Plan.

Lot Layout and Density. Density calculations (*See Attachment D - Typical Sections & General Notes*) have been based upon subtracting the area of all outlots and private land in the subdivision that will be dedicated to the city as public street right-of-way for Audubon Drive, Leopold Drive and Grant Avenue. With this method of subtracting out the area reserved for future development, the net density is 5.09 dwelling units per net acre. This exceeds the minimum required net density of 3.75 dwelling units per net acre of the FS-RL Zone.

Traffic and Street Connections. Grant Avenue was paved last fall as a rural collector street, designed with two travel lanes, curb and gutter, and street lights. The cost of Grant Road improvements is shared by the City and three development interests with the aforementioned Assessment District. Site specific access improvements are part of the individual subdivision review and not incorporated into the basic Grant Road improvements. This means that individual intersection improvements are the responsibility of each development as they occur.

The Grant Avenue/Leopold Drive intersection will be an access point for future development west of Grant Avenue, known as the Rose Prairie Subdivision. The developer of Hayden's Crossing, will be responsible for a pro rata share of costs related to turning lane improvements. **These improvements will occur on the east side of Grant Avenue at the developer's expense as part of the final platting process. West side improvements will be the obligation the Rose Prairie development.**

On-site Street Layout/Sidewalks. The revised preliminary plat includes Audubon Drive/Leopold Drive as a loop street with connection back to Grant Avenue. No additional cross streets are proposed by the developer. The length of Audubon Drive in this preliminary plat is approximately 1,100 feet. The developer proposes the trail connection to split the block length up, as is required by FS-RL zoning for blocks

exceeding 660 feet. Leopold Drive ends in a cul-de-sac at the east end of the subdivision.

The main issue for consideration of the street layout is how the eventual loop street design meets the City's expectations for connectivity of streets. The FS zoning and the Subdivision Code standards strive for a block length not to exceed 600 feet and to ensure that streets do not exceed 1,320 feet and to minimize cul-de-sacs and dead end. The loop street concept creates one long continuous roadway that exceeds a street block standard of 1,320 feet, but itself is not a dead end street. The loop street design is not a common circulation design within Ames, which is more typically curvilinear blocks with regularly spaced intersections.

Staff believes the intent of the Zoning and Subdivision ordinances read together are for connectivity principally, balanced with efficiency in layout. Staff believes a cross street would normally be a required component of the subdivision of this type, but in this case the loop road could be found to conform to the general site design standards of the Subdivision Code and open space components of the Conservation Subdivision.

The street width for the proposed Leopold Drive (*See Attachment F – Proposed Improvements*) meets the standard for a local residential street, that is, a 26-foot pavement width as measured from the back of the curb within a 55-foot right-of-way, accommodating parking on one side. Leopold Drive will include a 5-foot wide sidewalk on both sides of the street. The street layout also includes a mid-block crossing for pedestrians as required by FS-RL zoning when a block face exceeds 600 feet. Audubon Drive, in the First Addition of Hayden's Crossing has been constructed with these same dimensions and sidewalk on both sides of the street.

Pedestrian Connections. The proposed pedestrian trail is another element of the subdivision design that establishes an interconnected system of conservation areas and open space for use by the future residents of Hayden's Crossing. Sidewalks, at a width of 5 feet will be used along both sides of Audubon Drive, and along the west perimeter of the subdivision, next to Grant Avenue, to provide connectivity in lieu of additional trails.

Pedestrian trail connections are planned with the existing upland trail in the Ada Hayden Heritage Park. One trail connection is shown as extending through Outlot A of the subdivision, crossing Audubon Drive, and extending through Outlot B to Leopold Drive. The other trail will connect from the end of the cul-de-sac for Audubon Drive to the upland trail in Ada Hayden. The trails through the open space in Outlot A will have a crushed rock surface to match the trail it connects to in Ada Hayden Heritage Park.

Where the trail crosses Lots 15 and 16, a separate concrete walkway is shown on the Preliminary Plat (5 feet wide) in a 10-foot wide pedestrian easement running along the east edge of the shared driveway for Lots 15 and 16. The pedestrian trail extends through the full width of Outlot B as a 10-foot wide concrete walkway, and extends to Leopold Drive in a 10-foot wide pedestrian easement on Lot 23.

Natural Resource Inventory/Conservation Areas/Open Space/Buffer. The applicant completed a natural and cultural resources inventory as required by the Conservation Subdivision standards and no significant native plant communities exist on the site, nor are there any streams, waterways or dry channels on site. (The Natural Resources Inventory is available for review at the Planning and Housing Department.) **Therefore, the conservation areas in Hayden’s Crossing will be “naturalized” by establishing native plant communities, which is consistent with the conservation subdivision requirements.** The Conservation Subdivision Ordinance requires that the combination of conservation areas and open space comprise at least 25% of the land area in the subdivision, and be a system of interconnected conservation areas and open space areas distributed throughout the development, such that a minimum of 80% of residential lots abut a conservation area, or open space. The proposed plat shows approximately 30% of the land area in the subdivision to be used as open space, and more than 80% of lots abut a conservation area/open space, which meets the minimum standard.

The Master Plan and Preliminary Plat include a conservation area and buffer along a portion of the subdivision boundary. Outlot A extends at a width of 25 feet along the east and south boundaries of the subdivision, separating Ada Hayden Heritage Park from the proposed residential lots. Outlot A also includes a 25-foot buffer width along Grant Avenue, south of Audubon Drive. An additional conservation easement, 5 feet in width, extends along the rear lot lines of the lots south of Audubon Drive, which are included in the Final Plat for the First Addition. Outlot B extends at a width of 25 feet along Grant Avenue between proposed residential lots and Grant Avenue. These areas will be planted with a native prairie grass mixture. The Conservation Subdivision regulations require conservation areas that establish separation between external roads and residential lots be established and maintained, as a vegetated buffer area, a minimum of 25 feet in width, planted with native plant materials. Staff supports these outlot buffer areas, as the Parks and Recreation Department believes that this will provide better protection against encroachments into the park and will contribute to the health of the planting area.

The Street Tree and Landscaping Plan (*See Attachment G - Street Tree and Landscaping Plan*) portrays these naturalized conservation areas. A Conservation Area Management Plan has been submitted that describes these areas and how they will be established and maintained. The Developer will have initial responsibility for creating the conservation areas and the future homeowner’s association will have long term management responsibilities. (The Conservation Area Management Plan is available for review at the Planning and Housing Department.)

Stormwater Management. One of the principles of the Conservation Subdivision is to take the approach of Low Impact Development to design the project. This means the arrangement of lots, street and stormwater management minimizes mass grading of the site, minimize impervious areas, and maximize use of natural stormwater treatment measures. The overall approach to stormwater management provides treatment and control of the peak runoff rate from the entire site by providing multiple opportunities to slow the flow of stormwater on the surface and settle out and filter out sediments, a process called the “treatment train.” This system includes surface sheet flow to

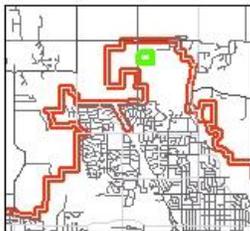
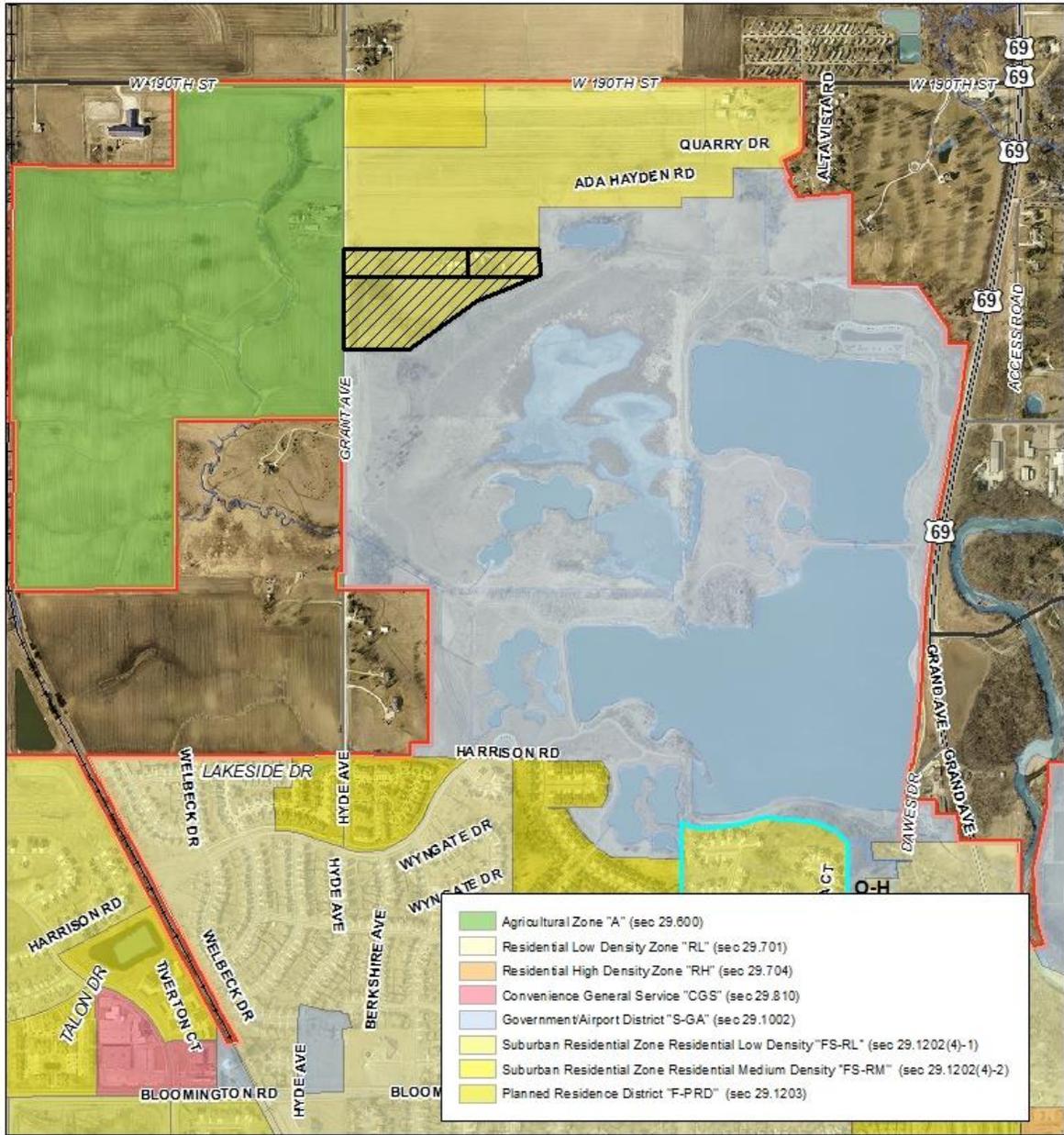
collecting basins, directing flow by vegetated swales, settlement areas drained by pipes and pipe outlets into vegetated swales to carry water to other basins. The system is designed for this project to take the vast majority of runoff to the centralized stormwater treatment system before it is released from the site. A small amount of water will sheet flow to the south into Ada Hayden Park, but they will be controlled to not exceed current rates of runoff.

Vital to all of these stormwater management systems is the native prairie vegetation to be established that will help slow the rate of runoff and facilitate the percolation of water into the soil for natural filtration and treatment. The proposed open spaces include substantial areas of native prairie planting (*See Attachment G - Street Tree and Landscaping Plan*).

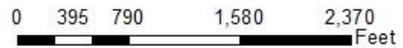
2013 Annexation Agreement. Off-site infrastructure of water, sewer, and road improvements that support the development are part of the 2013 annexation agreement for the property. An agreement was approved by owners of this subject property and other developable land parcels west of Ada Hayden Heritage Park abutting Grant Road, which established the timing and responsibility for extension of all of the urban infrastructure necessary to provide city services to the North Growth area as an assessment district (Grant Avenue paving) and connection districts (sewer and water). The installation of utilities to serve the new developments along Grant Road, and the paving of Grant Road north to 190th Street is underway at this time.

Applicable Law. Laws pertinent to the proposal are described on *Attachment I – Applicable Subdivision Law*. Pertinent for the City Council are Sections 23.302(5) and 23.302(6). Requirements for Ames Conservation Subdivision standards are in Division VI of Chapter 23 Subdivision Standards of the Municipal Code. Zoning standards for Suburban Residential development are contained in Article 12 of Chapter 29 of the Municipal Code.

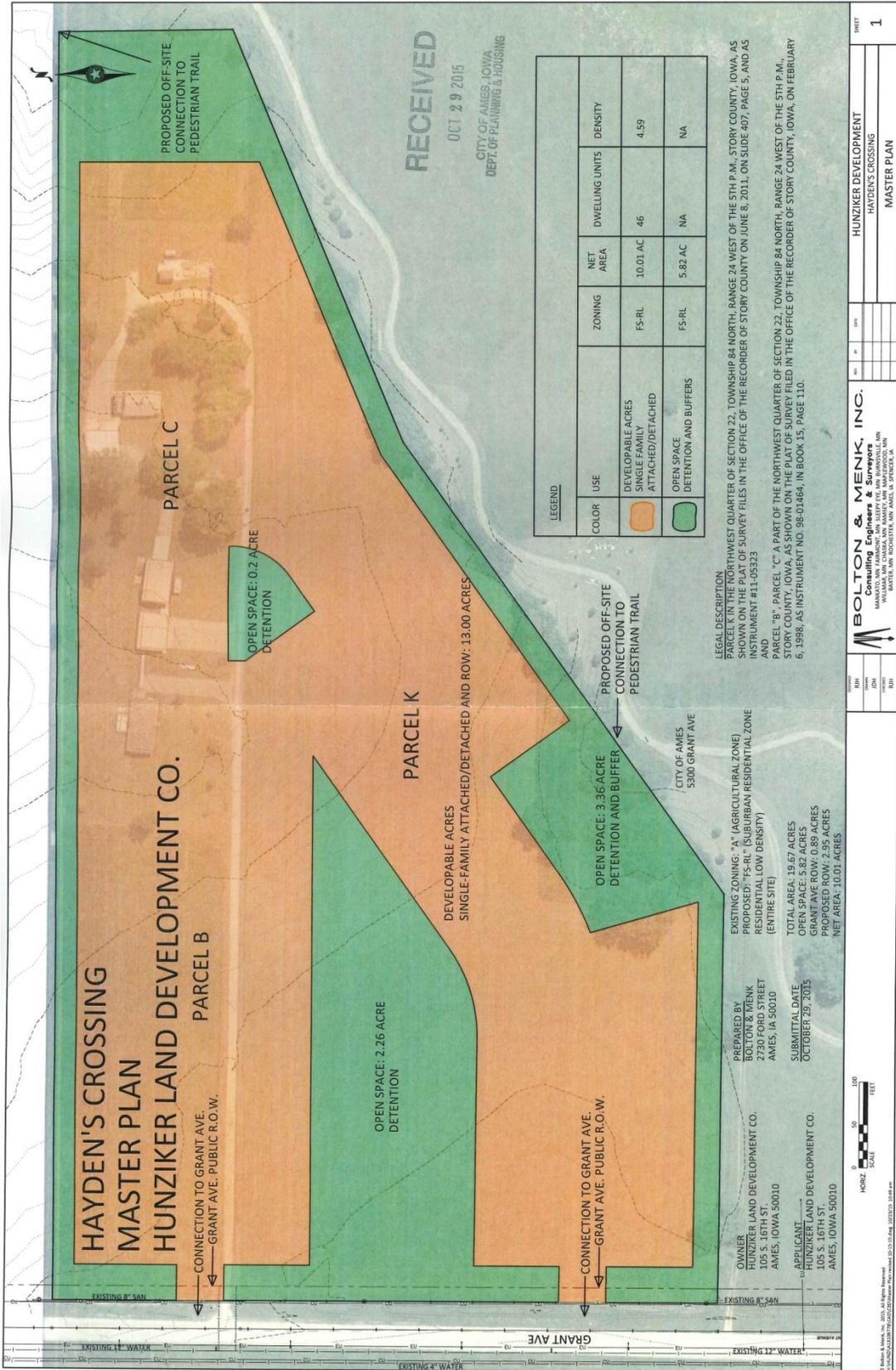
Attachment A: Location/ Zoning Map



Hayden's Crossing



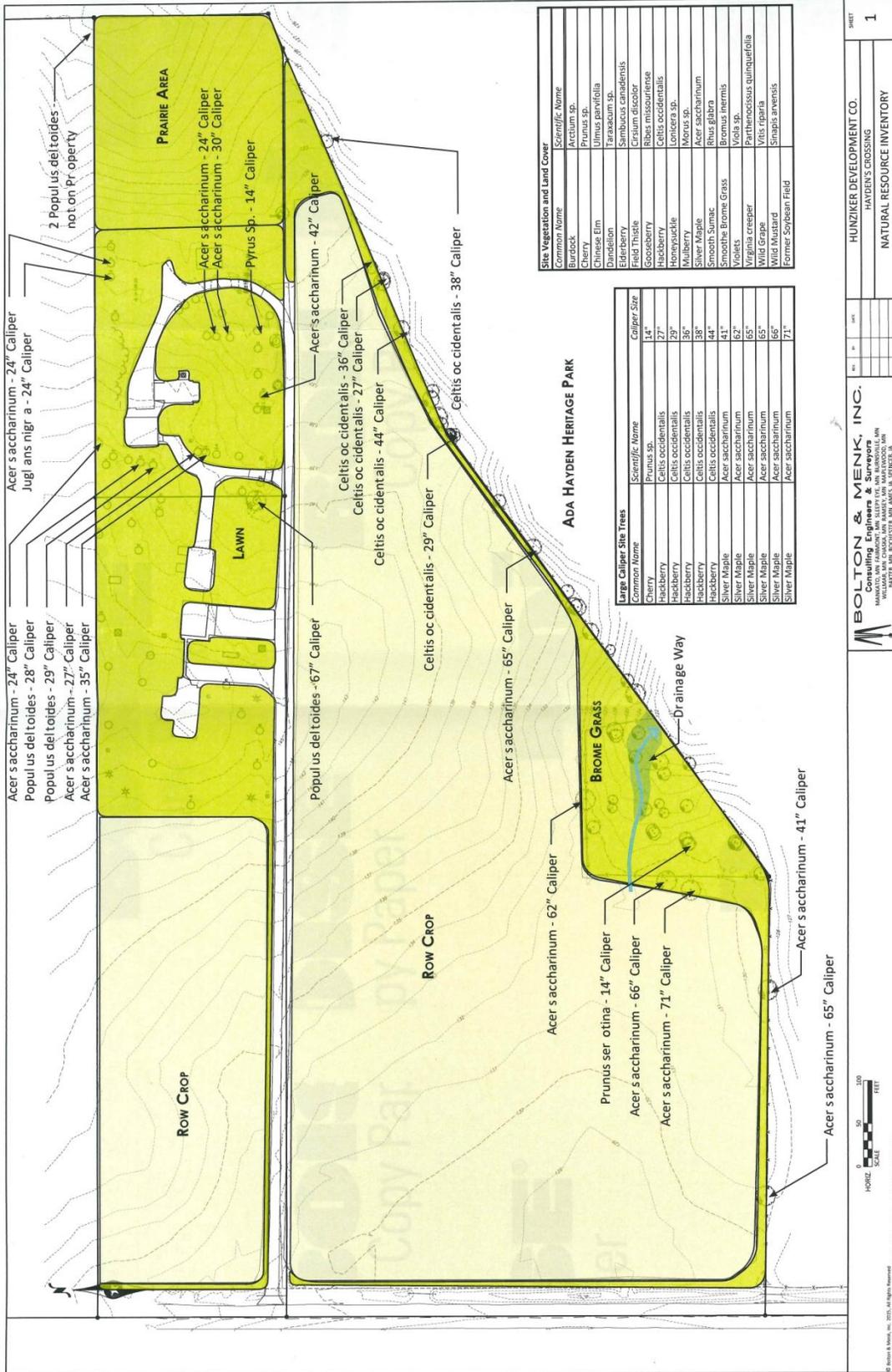
Attachment B: Master Plan



Attachment F: Proposed Improvements



Attachment H: Natural Resource Inventory



Attachment I: Applicable Subdivision Law

The laws applicable to this Preliminary Plat Subdivision include, but are not limited to, the following: (verbatim language is shown in *italics*, other references are paraphrased):

Code of Iowa Chapter 354, Section 8, requires that the governing body shall determine whether the subdivision conforms to its Land Use Policy Plan.

Ames Municipal Code Chapter 23, Subdivisions, Division I, outlines the general provisions for subdivisions within the City limits and within two miles of the City limits of Ames.

Ames Municipal Code Section 23.302(5):

(5) *City Council Review of Preliminary Plat: All proposed subdivision plats shall be submitted to the City Council for review and approval in accordance with these Regulations. The City Council shall examine the Preliminary Plat, any comments, recommendations or reports examined or made by the Planning and Zoning Commission, and such other information as it deems necessary and reasonable to consider.*

Ames Municipal Code Section 23.302(6):

(6) *City Council Action on Preliminary Plat:*

- a. *Based upon such examination, the City Council shall determine whether the Preliminary Plat conforms to relevant and applicable design and improvement standards in these Regulations, to other City ordinances and standards, to the City's Land Use Policy Plan and to the City's other duly adopted plans. In particular, the City Council shall determine whether the subdivision conforms to minimum levels of service standards set forth in the Land Use Policy Plan for public infrastructure and shall give due consideration to the possible burden of the proposed subdivision on public improvements in determining whether to require the installation of additional public improvements as a condition for approval.*
- b. *Following such examination and within 30 days of the referral of the Preliminary Plat and report of recommendations to the City Council by the Planning and Zoning Commission, the City Council shall approve, approve subject to conditions, or disapprove the Preliminary Plat. The City Council shall set forth its reasons for disapproving any Preliminary Plat or for conditioning its approval of any Preliminary Plat in its official records and shall provide a written copy of such reasons to the developer.*

Ames Municipal Code Chapter 23, Subdivisions, Division IV, establishes requirements for public improvements and contains design standards.

Ames Municipal Code Chapter 23, Subdivisions, Division VI, establishes requirements for Conservation Subdivisions, as follows:

DIVISION VI CONSERVATION SUBDIVISIONS

23.600. CONSERVATION DEVELOPMENT FOR SUBDIVISIONS

23.601. APPLICABILITY.

Conservation Design Development is an alternative set of design objectives and standards for residential subdivision development. These objectives and standards can be used as an alternative to common residential subdivision development in Ames. However, they shall apply to all residential subdivision development in the undeveloped areas of Ada Hayden Watershed north of Bloomington Road.

(Ord No. 4042, 8-10-10)

23.602. INTENT.

The intent of Conservation Design Development is to preserve the existing natural features of the site, to preserve the natural drainage features and hydrologic characteristics of the landscape, and to reduce the impacts of development on the landscape; and

(1) To maintain and protect in perpetuity Ames area natural character by preserving these important landscape elements including but not limited to those areas containing unique and environmentally sensitive natural features as prairie, woodlands, stream buffers and corridors, drainageways, wetlands, floodplains, ridgetops, steep slopes, critical species habitat, and by setting them aside from development;

(2) To promote interconnected greenways and environmental corridors throughout Ames;

(3) To provide commonly-owned open space and conservation areas for passive and/or active recreational use by residents of the development and, where specified, the larger community;

(4) To permit various means for owning conservation areas, preserved landscape elements, and to protect such areas from development in perpetuity;

(5) To provide greater flexibility in site dwellings and other development features than would be permitted by the application of standard use regulations in order to minimize the disturbance of natural landscape elements and sensitive areas, scenic quality, and overall aesthetic value of the landscape;

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(6) To protect and restore environmentally sensitive areas and biological diversity, minimize disturbance to existing soils, vegetation, and maintain environmental corridors, and

(7) To preserve significant archaeological sites, historic buildings and their settings.
(Ord No. 4042, 8-10-10)

23.603. GENERAL REQUIREMENTS.

(1) Design and Standards for Residential Lot Layout

(a) All residential units should be in cluster groups unless the site has been designed to preserve sensitive areas and maintain a stormwater treatment train.

(b) All lots shall take access from interior roads.

(c) All separation areas for residential lots along existing roads shall be landscaped in accordance with the conservation area landscaping requirements in Section 23.603(2)(f).

(d) Eighty percent (80%) of residential lots shall abut a conservation area or open space to the front or rear. Open space and conservation area across a road shall qualify for this requirement.

(e) Cluster groups shall be located to avoid or mitigate directly disturbing existing native prairie, woodlands, wetlands and other natural features identified in the site inventory of natural resources.

(2) Site Requirements

(a) Open water areas - A 50-foot native vegetative buffer shall be maintained around open water areas such as ponds and lakes unless a specific common use area is identified.

(b) Stream buffers - Stream buffers with native vegetation shall be maintained along stream areas using the following requirements based on stream order:

(i) Streams exceeding 3rd order and above, the City requires sketches, maps, studies, engineering reports, tests, profiles, cross-sections, construction plans and specifications to determine adequate buffer widths.

(ii) Perennial streams (1st and 2nd order). The total required stream buffer width is one hundred (100) feet on each side perpendicular to the waterway measured from the outer wet edge of the channel during base flows.

(iii) Intermittent streams. The total required stream buffer width is fifty (50) feet on each side perpendicular to the water way measured from the centerline of the channel.

(iv) Waterways and/or dry channels that have a contributing drainage area of fifty (50) acres or greater. The total required stream buffer width is thirty (30) feet on each side perpendicular to the waterway measured from the centerline of the waterway.

(v) Waterways and/or dry channels with a contributing drainage area of less than 50 acres. The total required stream buffer width is twenty (20) feet on each side perpendicular to the waterway measured from the centerline of the waterway.

(c) Stormwater management

(i) Minimize the use of storm sewer piping and maximize the use of swales.

(ii) Use curb cuts in lieu of storm sewer intakes when appropriate to divert street water to a stormwater conveyance or treatment system.

(iii) Sump pump discharge can be discharged into a stormwater conveyance or treatment system.

(iv) On-site treatment and storage of stormwater generated by the development shall occur in conservation area if it is consistent with the environmental functions of the conservation area. Individual lot on-site stormwater management may also be used in conservation subdivisions in conjunction with open space and conservation area management of stormwater.

(v) Include detailed design information for the stormwater management practices following the design information provided in the Iowa Stormwater Management Manual. The stormwater treatment train approach shall be used where appropriate to capture, treat and release stormwater.

(d) Shared use paths, sidewalks, and driveways

(i) An accessible and interconnected shared use path system shall be developed to connect residential areas with open space/conservation areas within or adjacent to the site.

(ii) Sidewalks shall only be required on one side of streets; however, all lots shall have direct access to sidewalks or the pathway system.

(iii) Typical driveway approach sections, Chapter 7 of SUDAS specifications, shall be used.

(e) Conservation Area Requirements

(i) The conservation area shall be designated as a Conservation Easement as detailed in the definition section of this ordinance.

(ii) Applicants must provide an explanation of the conservation area objectives

achieved with their proposed development and identify the percentage of the total development area that this area occupies.

(iii) All conservation areas shall be part of a larger continuous and integrated system except for conservation areas that are naturally isolated from other conservation areas on or near the site. For the purposes of this section, continuous shall be defined as either physically touching or located across a public right-of-way, for example, on opposite sides of an internal road.

(iv) Conservation areas, in accordance with the Conservation Area Management and Ownership outlined in Section 23.605, shall protect site features identified in the site natural resources inventory Section 23.604 (1) and analysis as having particular value in preserving and/or restoring the natural character and conserving natural resources in compliance with the intent of this ordinance and consistent with the goals and objectives of this ordinance.

(v) Healthy natural features such as woodlands, prairie, wetlands, and streambanks shall generally be maintained in their natural condition. If recommended by a professional with pertinent qualifications, the Municipal Engineer may authorize a modification to improve the natural features' appearance or restore the overall condition and natural processes, in compliance with an approved management plan, as described in Section 23.605.

(vi) All wetlands, floodways, and/or identified wildlife habitat areas shall be contained in conservation areas.

(vii) Conservation areas and open space shall be distributed throughout the development and combined shall comprise at least twenty-five (25) percent of the total area of the subdivision. An area comprised of conservation areas and open space greater than twenty-five percent of the total area of the subdivision may be required if necessary to maintain health features such as woodlands, prairie, wetlands and streambanks in their natural condition as provided in 23.603(2)(v).

(viii) Safe and convenient pedestrian access and access easements sufficient for maintenance vehicles shall be provided to conservation areas.

(f) Landscaping for Conservation Subdivisions - A landscaping plan shall be prepared that identifies all proposed landscaping and conforms to the following:

(i) The preservation of existing native, non-invasive vegetation as identified in the natural resources inventory Section 23.604(1) as being in good condition and of good quality shall generally be preferred to the installation of new plant material.

(ii) Mass grading of sites shall be minimized in order to preserve the natural features of the site.

(iii) Within all required separation areas between residential lots and external roads and site boundaries, existing woodlands with desirable tree species shall be retained.

(iv) All new landscaping in conservation areas to be installed and existing native vegetation to be preserved shall be protected through conservation easement. Native landscaping shall be installed according to the guidelines provided in the Iowa Stormwater Management Manual Section 2E-6.

(v) Trees of native species as indicated by the Iowa Department of Natural Resources and approved by the City shall be planted along internal roads within cluster groups in a total amount equivalent to the standard subdivision requirements. Trees may be planted, but are not required, along internal roads passing through conservation areas.

(vi) Informal, irregular, or natural arrangement is required for newly planted trees to avoid the urban appearance that regular spacing may evoke.

(vii) Trees shall be located so as not to interfere with the installation and maintenance of utilities, shared use paths, or sidewalks that may parallel the road.

(viii) Within all conservation areas, separation between external roads and residential lots, a vegetated buffer area at least 25 feet in width shall be maintained or established. Where no natural trees and/or shrubs exist, native plant materials shall be planted.

(ix) Conservation areas required to meet Section 23.603(1)(d), shall be planted using native species to enhance privacy and a natural appearance.

(x) Required buffers around wetlands, all water bodies and drainageways must be naturally vegetated or planted with native plant species appropriate to the surrounding landscape.

(xi) Buffers consisting of an informal, irregular or natural arrangement of native plant

species, combined with infrequent or prescriptive mowing are required to create a low-maintenance, naturalized landscape.

(xii) In addition to the above, land management practices minimizing the impact of nutrients shall be used and demonstrated in Ada Hayden Watershed; minimal fertilization of lawns including the use of phosphorus-free fertilizers is recommended.

(Ord No. 4042, 8-10-10)

23.604. APPLICATION PROCEDURE.

In addition to the standard subdivision application requirements, an inventory and mapping of natural resources shall be conducted prior to the initial submittal.

(1) **Inventory and Mapping of Natural Resources.** An inventory of natural resources of the proposed development site shall be conducted by experts in the field such as biologists, ecologists, soil scientists, hydrologists, geologists or those credentialed in a manner acceptable to the Municipal Engineer and must be submitted with the conservation subdivision application. The inventory must include, but is not limited to the following information mapped at a scale of no less than one inch equals 50 feet:

(a) Topographic contours at 2-foot intervals.

(b) United States Department of Agriculture, Natural Resource Conservation Service soil type locations and identification of soil type characteristics such as percolation rates, suitability for infiltration-based stormwater management practices, hydric soils, depth to water table, and suitability for wastewater disposal systems if applicable.

(c) Hydrologic characteristics, including surface water bodies, floodplains, groundwater recharge and discharge areas, wetlands, natural swales, drainage ways, and slopes 10% or greater.

(d) Land cover on the site including but not limited to prairie, woodland, forest, wetland and general cover type (pasture, woodland, etc.), and stand-alone trees with a caliper of more than [24] inches measured four feet off the ground. The inventory shall include comments on the health and condition of the natural resources.

(e) Known critical habitat areas for rare, threatened or endangered species using existing documented inventories.

(f) Cultural resources shall be identified by a brief description of historic character of buildings and structures, historically important landscapes, and archeological features using a review of existing, documented inventories.

(2) **Education and Outreach Plan for the Development.** An educational plan shall be developed and distributed to all perspective lot owners that describes the characteristics of the conservation subdivision including the development concept, conservation areas management practices that will be used to manage these areas, and benefits of the natural features. They shall also include information on lawn care strategies that reduce nutrient and pesticide inputs and pollution to local water bodies. Lot owners shall be made aware of the wildlife aspects of a conservation subdivision. Deer, birds, and other animals and insects will be attracted to the natural areas.

(Ord. No. 4042, 8-10-10)

23.605. CONSERVATION AREA MANAGEMENT AND OWNERSHIP.

(1) **Conservation Area Management Plan.** Every conservation subdivision must include a plan that provides evidence of a means to properly manage the conservation areas and open space areas in perpetuity through a conservation easement for conservation areas or common ownership for open space areas and evidence of the long-term means to properly manage and maintain all common facilities, including any stormwater facilities. The plan shall be approved by the Municipal Engineer prior to plat approval.

(a) A conservation area management plan shall be submitted with the following components during the following approval stages:

(2) **Preliminary Plat:**

(a) Include a conservation area management plan specifically focusing on the long-term management of conservation areas. The conservation area management plan shall include a narrative, based on the site analysis required in Section 23.604(1), describing:

(i) Existing conditions including all natural, cultural, historic, and scenic elements in the landscape.

(ii) The proposed completed condition for each conservation area; and the measures proposed for achieving the end state.

(iii) Proposed restoration measures, including: measures for correcting increasingly destructive conditions, such as erosion, and measures for restoring habitats, ecosystems, and