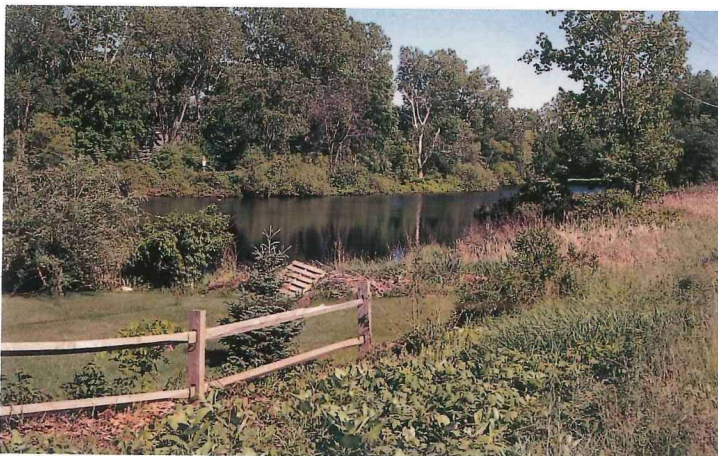


Chapter VI Model Policies and Ordinances

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Chapter VI. MODEL POLICIES AND ORDINANCES

Introduction

A goal of the S&H Project is to provide model ordinance and policy language for enabling, encouraging, and/or requiring several of the tools and techniques included in *Chapter V* that are intended to protect natural resources. Some of the model policies and ordinances included in this chapter are excerpts from existing texts, others are newly drafted. It will be necessary to modify each model policy and ordinance to meet the specific needs and goals of each individual community.

1.) Planning Support

- A.) Master Plan Goals and Policies
- B.) Supportive Background Information
- C.) Land Use Plans
- D.) Special Planning Areas

2.) Regulatory Measures and Site Design Techniques

- A.) Stormwater Management/Impervious Surface Mitigation Standards
- B.) Floodplain Management Standards
- C.) Steep Slope Development Standards
- D.) Resource Protection Overlay District Standards
- E.) Lot Averaging
- F.) Wetland/Natural Features Setback
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3.) Open Space Acquisition and Protection

- A.) Model Conservation Easement
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1.) Planning Support

A.) Master Plan Goals and Policies

Establishing the basis for preservation in the community's Master Plan is essential. The following pages outline the example goals and policies based upon the Holly Township Master Plan. Holly Township is a rural area; for this reason, not all goals will be applicable to communities within the study area, which are more built out and with higher densities. Goals are the general statements that define the direction and character of future development. Policies set forth the framework for action and form the basis upon which more detailed development decisions are made.

The following statements reflect the goals of the (community), pertinent to resource preservation:

- Goal: Maintain the abundance and quality of existing natural resources within the (community), and acknowledge the resulting limitations to development.
- Goal: Enhance and restore existing natural resources that have suffered degradation.
- Goal: Retain the unique character and the desirability of the (community) as a place to live, work, and play, maintaining and promoting the abundance of recreational opportunities.
- Goal: Allow for a range of housing choices within the limitations in the community. In areas where there are restrictions due to natural features, limiting soil conditions for on-site septic systems, lack of sewer and water and other urban services, and the capacity of the existing road network, maintain a primarily low density residential community.

The following statements reflect the policies of the (community) pertinent to resource preservation:

Policy 1: Land Use Intensity

Specific guidelines governing the intensity of land use should be dependent on the natural capability of the land to support various degrees of development.

- Low intensity land uses should be located where natural resource conditions are least capable of supporting development, existing roads are inadequate, and existing low density land use patterns currently exist. The use of septic and wells is appropriate for low intensity land uses. Compatible land uses would generally consist of low density residential, open and agricultural land, and recreation/conservation land.
- Medium intensity uses should be located where natural resource conditions are moderately capable of supporting development, adequate roads are accessible, and existing medium density land use patterns exist. The availability of sewer and water service should determine level of intensity. Suitable land uses would consist of medium density residential with complementary local commercial, office, public, and quasi-public uses.

- High intensity uses require access to major thoroughfares and expressways, sanitary sewer and water service, existing medium to high density land use patterns, and natural resource conditions most capable of supporting development. High density residential, office, industrial, and general commercial land uses would be consistent for this category.

Policy 2: Natural Resource Capability

All development shall respect the following natural characteristics and constraints:

Wetlands

- The protection of wetlands is essential in order to preserve water quality, stabilize stormwater runoff, recharge groundwater, and provide fish and wildlife habitat. The highest priority is for the preservation of wetlands in their natural state.
- While the actual boundaries and the significance of specific wetland areas must be determined at the time of development review, three aspects of wetland protection should be recognized in reviewing proposed development within and in the vicinity of wetland areas:
 - * Wetland area itself.
 - * The adjacent fringe or buffer area
 - * The remainder of the watersheds which drain into and out of the wetland area beyond the fringe or buffer area.

Woodlands

- The conservation of woodlands is imperative to protect water and soil quality, increase air quality, buffer noise pollution, moderate local climate and storm hazards, preserve wildlife habitats, and preserve aesthetic values and community beauty.
- Development which is permitted in and around wooded areas should be planned, constructed, and maintained so that existing, healthy trees and native vegetation are preserved. The objective should be to preserve native trees rather than rely on removal and subsequent replanting. The diversity of woodland areas should be protected to ensure long-term stability, and the variety of species preserved.

Slopes

- The existing landform should be made a part of land use planning and design. The primary objective should be preservation of the natural contours rather than alteration through mass grading.
- Careful planning of slopes is necessary in order to reduce erosion, maintain stability, and control amounts and velocities of runoff.

Groundwater Protection and Recharge

- Groundwater recharge areas restore water levels in underground storage areas and supply water to lakes, rivers, and streams. Due to the reliance on individual wells in some areas of the community [this may not be the case in all communities] retention and protection of groundwater resources in some areas are important to both (the community) and surrounding areas. Since recharge areas extend beyond (the community's) boundaries, county and regional cooperation will be needed to effectively manage and protect groundwater.
- Recharge areas are best kept as open space, or low density uses, to retain as much of the permeable surface as possible. Land grading should be controlled to retain the water holding characteristics of the land. Native vegetation essential to the water holding characteristics should be preserved, or where necessary, enhanced as part of a development program.
- Recharge areas should be protected from pollution by controlling all uses that discharge wastes into the hydrogeologic cycle. Especially critical to monitor are uses which handle hazardous materials that might leak or spill.

Stormwater Management and Drainage

- Protection of slopes, woodlands, and wetlands within the watershed and proper management of land use and development are essential to maintaining the quantity and quality of storm drainage.
- Natural vegetation and topographical features along stream corridors and waterways should be preserved. Uses should be restricted to those which offer no danger of topographical disturbance to the corridor, degradation of water quality, increased runoff, sedimentation, or stream channel alteration.
- Natural vegetation and topographical features along stream corridors and waterways should be restored and/or enhanced in appropriate areas.
- Surface water runoff should not exceed the rate that occurs under existing, undeveloped conditions. Control of runoff prevents overloading of streams and long-term erosion from uncontrolled, high velocity discharges.
- Agricultural practices [if the use is applicable within the community] should respect stream corridors and waterways and the natural drainage and runoff patterns associated with them, in concurrence with the development constraints listed above.

Natural Areas

- The preservation of natural areas is essential to maintaining the (community's) unique heritage and character and for providing high-quality and diverse wildlife habitat. These natural areas have been identified through (the Michigan Natural Features Inventory and the Nature Conservancy of Michigan, for example).

- Restoration and enhancement of natural areas should be encouraged and carried out in order to increase environmental quality
- Protection and management of the identified natural areas and related natural systems should be consistent with the recommendations of (reports conducted for the community) and is best achieved through a public-private partnership.

Site Design Policies

The Center for Watershed Protection, along with other environmentally based organizations, has published Model Development Principles designed to protect streams, lakes, and wetlands. Frequently, local ordinances contain provisions which discourage, rather than encourage, environmentally compatible design.

The following has been adapted from the Center for Watershed Protection Model Development Principles to be applicable to the S&H Project. It is intended that communities adopt the following policies to provide guidance in the revision of various codes. Community land development codes (i.e. zoning ordinance, site plan review standards, etc.) need to be reviewed based on the policies outlined below to determine their compatibility with the principles of the S&H Project study

Section _____. Development Policies

The (community) recognizes that rigid enforcement of certain site design standards may not result in the preservation of natural resources and features and the promotion of environmentally compatible design. Therefore, the following policies are adopted to provide guidance in the review of development plans (i.e. site plans, subdivision plats, and site condominium plans) where the (community) has the discretion to vary from adopted standards.

(a.) Street and Access

- (1) Design residential streets for the minimum required pavement width needed to support travel lanes; on street parking; and emergency, maintenance, and service vehicle access. These widths should be based on traffic volume.
- (2) Reduce the total length of residential streets by examining alternative street layouts to determine the best option for increasing the number of homes per unit length
- (3) Wherever possible, residential street right-of-way widths should reflect the minimum required to accommodate the travel-way, the sidewalk, and vegetated open channels.
- (4) Minimize the number of residential street cul-de-sacs and incorporate landscaped areas to reduce their impervious cover. The radius of cul-de-sacs should be the minimum required to accommodate emergency and maintenance vehicles. Alternative turnarounds should be considered, including the use of mountable curbing and grass shoulder for the occasional event of access by fire trucks and other large commercial trucks.

- (5) Where density, topography, soils, and slope permit, vegetated open channels should be used in the street right-of-way to convey and treat stormwater runoff
 - (6) Reduce overall lot imperviousness by promoting alternative driveway surfaces and shared driveways that connect two or more homes together
- (b.) Parking**
- (1) The required parking ratio governing a particular land use or activity should be enforced as both a maximum and a minimum in order to curb excess parking space construction. Existing parking ratios should be reviewed for conformance, taking into account local and national experience to see if lower ratios are warranted and feasible
 - (2) Reduce the overall imperviousness associated with parking lots by providing compact car spaces, minimizing stall dimensions, incorporating efficient parking lanes, and using pervious materials in the spillover parking areas, where possible.
 - (3) Encourage shared parking between compatible users.
 - (4) Wherever possible, provide stormwater treatment for parking lot runoff using bioretention areas, filter strips, and/or other practices that can be integrated into required landscaping areas and traffic islands.
- (c.) Site Design**
- (1) Advocate open space design development incorporating smaller lot sizes to minimize total impervious area, reduce total construction costs, conserve natural areas, provide community recreational space, and promote watershed protection.
 - (2) Relax side yard setbacks and allow narrower frontages to reduce total road length in the community and overall site imperviousness. Relax front set back requirements to minimize driveway lengths and reduce overall lot imperviousness.
 - (3) Promote more flexible design standards for residential subdivision sidewalks. Where practical, consider locating sidewalks on only one side of the street and providing common walkways linking pedestrian areas.
- (d.) Environmental Features**
- (1) Direct rooftop runoff to pervious areas such as yards, open channels, or vegetated areas and avoid routing rooftop runoff to the roadway and the stormwater conveyance system.
 - (2) Create a variable width, naturally vegetated buffer system along all perennial streams that also encompasses critical environmental features such as the 100-year floodplain, steep slopes, and freshwater wetlands.
 - (3) The riparian stream buffer should be preserved or restored with native vegetation. The buffer system should be maintained through the plan review delineation, construction, and post-development stages.

- (4) Clearing and grading of forests and native vegetation at a site should be limited to the minimum amount needed to build lots, allow access, and provide fire protection. A fixed portion of any community open space should be managed as protected green space in a consolidated manner.
- (5) Conserve trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native plants. Wherever practical, manage community open space, street rights-of-way, parking lot islands, and other landscaped areas.
- (6) New stormwater outfalls should not discharge unmanaged stormwater into jurisdictional wetlands, sole source aquifers, or sensitive areas.

B.) Supportive Background Information

Documentation is a key for supporting goals and policies as well as land use planning concepts. With the abundance of information provided through the S&H Project, incorporating such data in the Master Plan is essential to support and direct preservation efforts.

Inventories

The (community) has obtained a comprehensive set of natural resource maps, prepared by (cite sources) Outlined in a series of color overlays are. water resources including surface water, wetlands, floodplains; land resources including slopes over 10%, land containing prime farming characteristics, and lands that are unsuitable for development, vegetative resources including deciduous and coniferous woodlands; and natural features from the Michigan Natural Features Inventory Program

The Michigan Natural Features Inventory Program identified and ranked the areas of environmental significance within the (community.) Ranking of natural areas was based upon such characteristics as intactness, occurrence of rare species, and existence of upland/wetland complexes. The MNFI also extensively inventoried (name the particular site or sites) The inventory provides such information as summary of ecological significance, threats, and stewardship considerations. (Provide a list and brief description of the inventoried and identified sites within the community of environmental significance)

Geology

The (community) is situated within one of two broad zones in the southeast Michigan area the hilly zone The largest surface geological form in the (community) is the area of till plain, closely followed by the morainic form The outwash plain accounts for the least area. Landforms are the result of prehistoric glacial movement and deposits mainly of sand and gravel

Soils (Sample language from the Holly Township Master Plan)

General soil mapping indicates that there are seven broad soil types in Holly Township. The most prevailing soil types is the Pipestone, with the Eau Claire and Wixom soil types forming the next two soil type classifications, respectively. The Village of Holly, and the most intensively developed portions of the Township, lie within the Wixom soil type and the area of outwash plain Neither of these natural features are supportive of septic tank development.

Vegetation

Northern Oakland County lies in a deciduous forest zone in which the climax forest is Beech and Maple. After the retreat of the glaciers, uplands became forested by oak communities. The kettle depressions developed into tamarack or hardwood swamps, and sometimes remained as lakes surrounded by meadows. The channels gradually became extensive swamps or meadows, and were often cut by rivers and streams.

Water Resources (Sample language from the Holly Township Master Plan)

Holly Township has abundant water resources including lakes, wetlands, and streams. More than 35 lakes of varying size are scattered extensively throughout the Township, occupying 6% of total land area. Large areas of wetlands surround the many water bodies as well The Shiawassee River traverses through the southern portion of the Township, and Swartz Creek is located in the central northern portion.

It is estimated that only 370 acres or 22% of pre-settlement wetlands remain today. Lowland forests total 230 acres and upland forests 370 acres, both less than 10% of what originally existed in the Township.

Drainage

Township drainage is composed of an interrelated system of the following natural and manmade elements:

- natural drainage courses and water bodies such as rivers, floodplains, wetlands, and lakes, some of which are under the MDEQ jurisdiction.
- established County drains, which are under the jurisdiction of the County Drain Commissioner.
- roadside ditches, which are under the jurisdiction of the County Road Commission.

The management of the above combined drainage elements are not coordinated by any one of the three involved governmental bodies, therefore, careful monitoring must occur and problem areas identified in order that the proper management agency can address problems in a prioritized manner. The Township can also ensure that development in areas with lakes and wetlands is done in a sensitive manner with a great effort to minimize impacts upon these natural systems. Furthermore, as road improvements under the Road Commission for Oakland County jurisdiction occur, coordinated improvements to the drainage in that area can also be addressed.

Topography (Sample language from the Holly Township Master Plan)

In Southeast Michigan, slopes of 12% or more should generally not be developed because of their uniqueness in the area. Holly Township has considerable areas of 12% slopes, distributed throughout the Township, quite a few of which are part of a wetland environment. This is most significant for water quality purposes because of the high incidence of potential surface runoff from these lands if developed and concurrent pollution of water bodies from urban runoff.

C.) Land Use Plans

Integrating significant natural resources and features, such as those identified in the S&H Project, with the land use plan fortifies the basis for preservation efforts. Describing areas of particular sensitivity, two possible approaches are represented below. The first approach establishes a distinct land use plan category for areas of particular sensitivity. The second approach is to establish an overlay category applicable to sensitive areas, whereby land use densities are set by the underlying categories.

Resource Conservation/Residential (Separate Category)

This designation is a composite of significant natural features in the Township. The areas designated under this category include the 22 natural areas identified in the Nature Conservancy Study and associated natural features, wetlands, tributaries, flood plains, and lakes. While not all wetlands were included in this designation, they are still subject to applicable local and state regulations. The purpose of this designation is to promote the preservation of these valuable natural systems while allowing for low intensity land uses such as Agricultural use and Low Density Residential development (5 acre minimum). Furthermore, this designation was created to promote innovative development techniques in these areas, such as cluster or open space developments, in order to both preserve natural areas while allowing for a reasonable use of the land. Development should be directed away from the natural areas with a significant buffer area. Many tools are available to promote the preservation of these areas such as conservation easements or land donation.

Resource Conservation (Overlay)

This overlay designation represents a composite of significant natural features in the Township and is intended to supplement the underlying land use designation. The areas designated under this category include the 22 natural areas identified in the Nature Conservancy Study and associated natural features, wetlands, tributaries, flood plains and lakes. While not all wetlands were included in this designation, they are still subject to applicable local and state regulations. The purpose of this designation is to promote the preservation of these valuable natural systems. Furthermore, this designation was created to promote innovative development techniques in these areas such as cluster or open space developments in order to both preserve natural areas while allowing for a reasonable use of the land. Development should be directed away from the natural areas with a significant buffer area. Many tools are available to promote the preservation of these areas such as conservation easements or land donation.

D.) Special Planning Areas

While the land use plan presents an overall land use development scheme for the entire Township, emphasis can be placed on areas that deserve special attention through area plans. The following depicts an example of a special planning area for Holly Township.

The Rattalee Lake wetlands area is a truly unique asset shared by Holly Village, Holly Township, and Rose Township. The area is one of the few areas left in Oakland County that maintains its pre-settlement landscape. Only one-half of 1% of Oakland County remains in this undisturbed condition. Holly Township can capitalize on this natural asset by working for its protection and featuring the area as a visitor destination point which represents some of the natural beauty, which can be found in the Township. The Rattalee Lake Greenway Project developed the following recommendations in order to preserve this unique asset:

- Conservation easement or parcel donation to a land conservancy to protect undisturbed areas
- Natural area registration or agreement with a land conservancy
- Enrollment in the Farmland and Open Space Preservation Act (PA 116).
- Creation of a management agreement to protect against invasion of alien plants or increases in stormwater runoff.
- Implementation of Best Management Practices for stormwater.
- Limitation of land clearing and grading to reduce stormwater runoff and remove pollutants

The Township should also consider the following recommendations:

- Coordinate with surrounding communities and Oakland County in preservation efforts
- Promote the area as a destination point for visitors and include in any proposed Township trail system.
- Allow only the least intense uses adjacent to the area to minimize impacts.

2.) Regulatory Measures and Site Design Techniques

A.) Stormwater Management/Impervious Surface Mitigation Standards

The following is sample language relative to stormwater management that may be adopted as part of either the Zoning Ordinance or community design standards. Most communities have adopted standards that limit the rate of runoff from sites, but do little to encourage either creative means of managing stormwater on-site or reducing the amount of impervious surface. Frequently, local ordinances contain provisions that result in significant amounts of impervious surface from streets, sidewalks, and parking lots and do not promote environmentally compatible design. Single purpose solutions are proposed that may efficiently remove stormwater but do not promote infiltration, improve water quality, or enhance integrated stormwater management as an integral component of aesthetic site design.

Section _____. Stormwater Management/Impervious Surface Mitigation

- (a.) **Purpose.** The (community) recognizes that stormwater runoff has been traditionally treated as a by-product of development to be disposed of as quickly and efficiently as possible. The result has often been increased flooding, degradation of water quality, soil erosion and sedimentation, and a failure to capitalize on the benefit of creative stormwater management. It is also recognized that certain community development standards may contribute to decreased pervious surface and increased stormwater runoff

It is the intent of this Ordinance to encourage the use of Best Management Practices (BMPs) which are structural, vegetative, or managerial practices designed to treat, prevent, or reduce degradation of water quality due to stormwater runoff. All development projects subject to review under the requirements of this Ordinance shall be designed, constructed, and maintained using BMPs to prevent flooding, protect water quality, reduce soil erosion, maintain and improve wildlife habitat, and contribute to the aesthetic values of the project. The particular facilities and measures required on-site shall reflect and incorporate existing grade, natural features, wetlands, and watercourses on the site, to the maximum extent feasible.

- (b.) **Stormwater Drainage/Erosion Control.** All stormwater drainage and erosion control plans shall meet the standards adopted by the (community) for design and construction and shall, to the maximum extent feasible, utilize nonstructural control techniques, including but not limited to:

- (1) limitation of land disturbance and grading;
- (2) maintenance of vegetated buffers and natural vegetation;
- (3) minimization of impervious surfaces;
- (4) use of terraces, contoured landscapes, runoff spreaders, grass or rock-lined swales;
- (5) use of infiltration devices;

(c.) General Standards.

- (1) Stormwater management systems shall be designed to prevent flooding and the degradation of water quality related to stormwater runoff and soil erosion from proposed development.
- (2) All properties which are subject to this ordinance shall provide for on-site storage of stormwater. Facilities shall be designed to provide a volume of storage and discharge rate which meets the Oakland County Drain Commissioner's standards or the standards of (community), whichever are stricter.
- (3) Priority shall be placed on site design that maintains natural drainage patterns and watercourses. Alterations to natural drainage patterns shall not create flooding or degradation in water quality for adjacent or downstream property owners
- (4) The use of swales and buffer strips vegetated with native materials is encouraged as a method of stormwater conveyance so as to decrease runoff velocity, allow for biofiltration, allow suspended sediment particles to settle, and to remove pollutants
- (5) Drainage systems shall be designed to be visually attractive. The integration of stormwater conveyance systems and retention and detention ponds in the overall landscape concept is recommended. Ponds with a naturally contoured, rather than square or rectangular design and appearance shall be encouraged.

(d.) Use of Wetlands. Wetlands may be used for stormwater management if all the following conditions are met:

- (1) Direct discharge of untreated stormwater to a natural wetland is prohibited. All runoff from the development will be pre-treated to remove sediment and other pollutants prior to discharge to a wetland. Such treatment facilities shall be constructed before property grading begins. Stormwater runoff discharged to wetlands must be diffused to non-erosive velocities before it reaches the wetland
- (2) Wildlife, fish, or other beneficial aquatic organisms and their habitat within the wetland will not be impaired
- (3) The wetland has sufficient holding capacity for stormwater, based upon calculations prepared by the proprietor and reviewed and approved by the township engineer.
- (4) Adequate on-site erosion control is provided to protect the natural functioning of the wetland.
- (5) Adequate private restrictions are established so as to insure that the wetland is not disturbed or impaired in the future relative to the needed storage capacity.
- (6) Applicable permits from the Michigan Department of Environmental Quality are obtained.

- (e.) **Impervious Surface Reduction/Infiltration Enhancement.** The (community) recognizes that, due to the specific requirements of any given development, inflexible application of the design standards may result in development in excessive paving and stormwater runoff and a waste of space, which could be left as open space.

Either through procedures prescribed by Ordinance or creative land development techniques permitted by Ordinance, the (community) may permit deviations from requirements allowing for reduction in impervious surfaces whenever it finds that such deviations are more likely to meet the intent and standards of this Ordinance and accommodate the specific characteristics of the use in question.

The (community) may attach conditions to the approval of a deviation that bind such approval to the specific use in question. Measures that reduce impervious surface and increase infiltration may include, but are not limited to, the following.

(1) **Streets and Access.**

- a. Residential streets designed with the minimum required pavement width needed to support travel lanes; on-street parking, and emergency, maintenance, service vehicle access, and function based on traffic volumes
- b. The total length of residential streets reduced by examining alternative street layouts to determine the best option for increasing the number of homes per unit length.
- c. Street right-of-way widths designed to reflect the minimum required to accommodate the travel-way, the sidewalk, and vegetated open channels.
- d. Minimize the number of street cul-de-sacs and reduce the radius of cul-de-sacs to the minimum required to accommodate emergency and maintenance vehicles. Alternative turnarounds shall be considered, including the use of mountable curbing and grass shoulders for the occasional event of access by fire trucks and other large commercial trucks. Where cul-de-sacs do exist, provide landscape center islands.
- e. Where density, topography, soils, and slope permit, use of vegetated open channels in the street right-of-way to convey and treat stormwater runoff.
- f. Use of alternative driveway surfaces and shared driveways that connect two or more uses.
- g. Promote more flexible design standards for residential subdivision sidewalks. Where practical, consider locating sidewalks on only one side of the street and providing common walkways linking pedestrian areas.

(2) Parking

- a Base parking requirements on the specific characteristics of the use, and landbank in open space, parking that is required to satisfy Ordinance requirements
- b Reduce the overall imperviousness associated with parking lots by providing compact car spaces, minimizing stall dimensions, incorporating efficient parking lanes, and using pervious materials in the spillover parking areas where possible
- c Encourage shared parking between compatible users

(3) Site Design

- a Relax side yard setbacks and allow narrower frontages to reduce total road length in the community and overall site imperviousness. Relax front set back requirements to minimize driveway lengths and reduce overall lot imperviousness.
- b Direct rooftop runoff to pervious areas such as yards, open channels, or vegetated areas and avoid routing rooftop runoff to the roadway and the stormwater conveyance system.
- c Create a variable width, naturally vegetated buffer system along all drainageways that also encompasses critical environmental features such as the 100-year floodplain, steep slopes, and wetlands.
- d Minimize clearing and grading of woodlands and native vegetation to the minimum amount needed to build lots, allow access, and provide fire protection
- e Conserve trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native plants.

- (f.) Maintenance.** Whenever a landowner is required to provide on-site storm water retention and/or surface drainage to wetland, or whenever other protective environmental measures including monitoring devices are required, such measures or facilities shall be provided and maintained at the landowner's expense. The landowner shall provide satisfactory assurance to the Township whether by written agreement or otherwise, that the landowner will bear the responsibility for providing and maintaining such methods or facilities

B.) Floodplain Management Standards

Floodplain management regulations have been in existence for a number of years, but took on increased significance with the passage of the National Flood Insurance Program. Floodplain regulations are a necessary prerequisite to permit enrolling of proposed owners in the flood insurance program.

The following language represents standards that are designed to prevent loss of life and property by restricting development within floodplain areas

Section. _____ Floodplain Management Standards

(a) **Intent.** It is the intent of the (community) in adopting this article to significantly reduce hazards to persons and damage to property as a result of flood conditions in the (community); to comply with the provisions and requirements of the National Flood Insurance Program; to protect human life, health and property from dangerous and damaging effects of flood conditions; to minimize public expenditures for flood control projects, rescue and relief efforts in the aftermath of flooding, repair of flood damage public facilities and utilities, and the redevelopment of flood damaged homes, neighborhoods, commercial and industrial areas, to maintain stable development patterns not subject to the blighting influence of flood damage, to designate floodplains and institute floodplain development regulations and general development standards, to establish regulations concerning the same; and to provide for the administration of this article and to provide penalties for violation.

(b) **Delineation of the flood hazard area overlay zone.**

(1) The flood hazard area zone shall overlay existing zoning districts delineated on the official (community) Zoning Map. The boundaries of the flood hazard area zone shall coincide with the boundaries of the areas indicated as within the limits of the 100-year flood on the Flood Insurance Road Map for (community) dated _____ The Flood Insurance Rate Map is adopted by reference, appended, and declared to be a part of this ordinance. The term flood hazard area as used in this ordinance shall mean the flood hazard area zone.

(2) Disputes as to the location of a flood hazard area zone boundary shall be resolved by the Zoning Board of Appeals.

(3) In addition to other requirements of this ordinance applicable to development in the underlying zoning districts, compliance with the requirements of this Section shall be necessary for all development occurring within the flood hazard area zone. Conflicts between the requirements of this Section and other requirements of this ordinance or any other ordinance shall be resolved in favor of this Section, except where the conflicting requirement is more stringent and would further the objectives of this Section to a greater extent than the requirements of this Section. In such cases, the more stringent requirement shall be applied.

(c) **Principal and Accessory Uses Permitted.**

(1) Within the flood hazard area overlay zone, no land shall be used except for one or more of the following principal uses:

- a Agriculture and pasture land
 - b. Parks and recreation facilities, provided no permanent structures are constructed
 - c Swimming beaches, fishing, and boating docks in accord with the provisions of the Inland Lakes and Streams Act of 1972
 - d Required open space or lot area for structural uses that are landward of the overlay zone.
- (2) The following accessory structures and uses are permitted, provided they are also permitted in the underlying zoning district.
- a Off-street parking, streets, roads, bridges, outdoor play equipment, sheds and garages, boathouses, boat hoists, utility lines, pump houses, bleachers, bank protection structures, signs, fences, gazebos and similar outdoor equipment and appurtenances, provided each of the following requirements are met:
 - 1 The structure would not cause an increase in water surface elevation, obstruct flow, or reduce the impoundment capacity of the floodplain
 - 2 All equipment and structures shall be anchored to prevent flotation and lateral movement.
 - 3. Compliance with these requirements is certified by an engineering finding by a registered engineer.
- (d.) **Filling and Dumping** - Dredging and filling and/or dumping or backfilling with any material in any manner is prohibited unless through compensating excavation and shaping of the floodplain, the flow and impoundment capacity of the floodplain will be maintained or improved, and unless all applicable state regulations are met.
- (e.) **General Standards for Flood Hazard Reduction.**
- (1) No building or structure shall be erected, converted, or substantially improved or placed, and no land filled or structure used in a flood hazard area unless permission is obtained from the (community). Approval shall not be granted until a permit from the Michigan Department of Environmental Quality under authority of Act 245 of the Public Acts of 1929, as amended by Act 167 of the Public Acts of 1968 has been obtained.
 - (2) All public utilities and facilities shall be designed, constructed, and located to minimize or eliminate flood damage
 - (3) Land shall not be divided in a manner creating parcels or lots which cannot be used in conformance with the requirements of this Section.

- (4) Available flood hazard data from federal, state or other sources shall be reasonably utilized in meeting the standards of this section.

(f.) **Disclaimer of Liability.** The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based upon engineering and scientific methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes. Thus, approval of the use of land under this article shall not be considered a guarantee or warranty of safety from flood damage. This article does not imply that areas outside the flood hazard area will be free from flood damage. This article does not create liability on the part of the (community) or any officer or employee thereof for any flood damage that results from reliance on this article, or any administrative decision lawfully made.

(g.) **Flood Hazard Area Variances.**

- (1) Variances from the provisions of Section _____ Floodplain Management shall only be granted by the Zoning Board of Appeals upon a determination of compliance with the general standards for variances contained in this ordinance and each of the following specific standards

a. A variance shall be granted only upon:

1. a showing of good and sufficient cause;
2. a determination that failure to grant the variance would result in exceptional hardship to the applicant; and
3. a determination that the granting of a variance will not result in a harmful increase in flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing laws or ordinances, and
4. a determination that the granting of a variance will not result in any violations of applicable state or federal laws.

b. The variance granted shall be the minimum necessary, considering the flood hazards, to afford relief to the applicant.

- (2) The Zoning Board of Appeals may attach conditions to the granting of a variance to ensure compliance with the standards contained in this ordinance.

- (3) Variances may be granted for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the Michigan Historic Markers listing of historic sites or any other state register of historic places without regard to the requirements of this section governing variances in flood hazard areas.

(h.) Mapping disputes.

- (1) Where disputes arise as to the location of the flood hazard area boundary or the limits of the floodway, the Zoning Board of Appeals shall resolve the dispute and establish the boundary location. In all cases, the decision of the Zoning Board of Appeals shall be based upon the most current floodplain studies issued by the Federal Insurance Administration. Where Federal Insurance Administration information is not available, the best available floodplain information shall be utilized.
- (2) Where a dispute involves an allegation that the boundary is incorrect as mapped and the Federal Insurance Administration floodplain studies are being questioned, the Zoning Board of Appeals shall modify the boundary of the flood hazard area or the floodway only upon receipt of an official letter of map amendment issued by the Federal Insurance Administration.
- (3) All parties to a map dispute may submit technical evidence to the Zoning Board of Appeals.

C.) Steep Slope Development Standards

These model regulations are intended as overlay regulations within areas designated by communities as having steep slopes.

Section _____. Steep Slope Protection Overlay Standards.

- (a) **Purpose.** This section is intended to protect resources in environmentally sensitive areas to ensure that development does not result in erosion and in flooding during site preparation and the development process. All uses and activities established after the effective date of this Ordinance shall comply with the following standards. Site alternations, re-grading, filling or the clearing of vegetation, or any other activity deemed detrimental to any environmentally sensitive area or resource prior to the submission of plans for subdivision or land development shall be a violation of this Ordinance.
- (b) **General Design Standards.**
- (1) Structures shall be designed in a manner that requires a minimum amount of alternation to the steep slope and that otherwise complies with the grading standards in Subsection (C) of the Ordinance. Except where a geologic hazard investigation report recommends otherwise, multi-level building design and/or terracing shall be used. Otherwise, structures shall be sited on existing level areas of the site.
 - (2) Particular caution shall be taken to prevent increases in the rate of stormwater runoff and erosion downslope of any steep slope development site. An approved (enforcing agency) permit shall be submitted before any use is approved under the provisions of this Ordinance.
- (c) **Specific Design Standards.**
- (1) Any site disturbance of slopes exceeding fifteen (15%) percent shall be minimized.
 - (2) No site disturbance shall be allowed on slopes exceeding twenty-five (25%) percent, except under the following circumstances.
 - a. Grading for a portion of a driveway accessing a single family dwelling when it can be demonstrated that no other routing which avoids slopes exceeding twenty-five (25%) percent is possible.
 - b. Upon submission of a report by a certified soil or geotechnical engineer indicating that the steep slope may be safely developed and execution of a provision agreeing to hold the (community) harmless from any claims of damages due to approval of such development. If development is allowed to proceed under this subsection, no more than (15%) percent of such areas shall be developed and/or re-graded or stripped of vegetation.
 - (3) Finished slopes of all cuts and fills shall not exceed three-to-one (3.1), unless the applicant can demonstrate that steeper slopes can be stabilized and maintained adequately.

D.) Resource Protection Overlay District Standards

Overlay districts are an effective way to reflect the unique characteristics of a given area. Furthermore, the overlay approach avoids the need to rezone a multitude of properties that either exhibit unique characteristics or require additional protection.

The following language represents a comprehensive approach which gives the community and developer the opportunity to formulate a plan based on the characteristics of a given parcel. Furthermore, it requires that regulation is based on factual ecological information. Where it exists, the MNFI information is to be used. In the absence of the MNFI studies, or other appropriate data, the overlay ordinance requires the developer to conduct ecological studies to provide a sound basis for a development plan.

Section _____. Resource Protection Overlay District

- (a.) **Purpose.** The purpose of this Section is to ensure that property is developed in a manner consistent with its zoning designation, and the proposed physical elements are designed and arranged to protect the priority resource protection areas both on the site and in the vicinity of the site as identified by the (community). The Overlay District establishes procedures to enable the applicant and (community) to achieve the mutually compatible objectives of reasonable use of land and protection of vital natural resources.
- (b.) **Applicability.** To the maximum extent feasible, any development plan (i.e. site plan, subdivision plat, and site condominium plan) shall be designed and arranged to ensure that disturbance to any priority resource protection area as a result of the development, and that impacts and disturbance to such areas and the plants and wildlife inhabiting those areas, shall be minimized through the use of natural area buffers, conservation easements, and creative land development techniques. To that end, the (community) has identified areas to be regulated on a Priority Resource Protection Map, which is attached to and made part of this Ordinance. (Such a map will need to be produced for each community based on available data from the S&H Project)
- (c.) **Ecological Characterization** It is intended that these Ordinance requirements be applied based upon reliable and factual data. Applicants are encouraged to consult the Michigan Natural Features database. Where detailed studies have been prepared by the Michigan Natural Features Inventory no other additional ecological study is required. If a development site is determined by the (community), upon information or from inspection, that the site likely includes areas with wildlife, plant life, and/or other natural characteristics in need of protection, and if the (community) does not then possess the information required to apply review standards, then the developer shall provide to the (community) a report prepared by a professional qualified in the areas of ecology, botany, wildlife biology, or other relevant discipline that describes, without limitation, the following:

 - (1) the wildlife use and habitat showing the species of wildlife using the area, the times or seasons that the area is used by those species, and the "value" (meaning feeding, watering, cover, nesting, roosting, perching) that the area provides for such wildlife species,

- (2) the boundary of wetlands in the area and a description of the ecological functions and characteristics provided by those wetlands;
- (3) any prominent views from or across the site,
- (4) the pattern, species, and location of any significant native trees and other native site vegetation;
- (5) the bank, shoreline, and high water mark of any stream or body of water on the site;
- (6) wildlife movement corridors; and
- (7) the general ecological functions provided by the site and its features

The (community) may employ their own consultants with the relevant expertise to review materials submitted by the applicant.

(d.) Establishment of Priority Protection. For every development subject to this Ordinance, the applicant shall propose, and the (community) shall establish on the project development plan, areas of priority protection. The development plan shall establish the development capability of the site and indicate the specific area(s) of a site within which the developed project may be constructed and within which the development activity shall be contained. In establishing the development capability of a site, the (community) shall consider and apply the following criteria:

- (1) The actual boundary of development capability designation to be shown on a development plan shall be proposed by the applicant, and established by the (community) through site evaluations and reconnaissance, and shall be based on the ecological characterization of the area.
- (2) In establishing the development capability of the site, the following shall be taken into account:
 - a. visual impacts, including but not limited to ridgeline protection areas and protection of scenic views.
 - b. erosion prevention and control, including but not limited to protection of natural drainage channels and compliance with an approved stormwater drainage management plan.
 - c. preservation of significant native trees and other native site vegetation, including protection of natural area buffers zones.
 - d. conservation of water, including but not limited to preservation of existing native vegetation, reduction in amounts of irrigated areas, and similar considerations
 - e. stream corridor and wetland protection and buffering.

- f site topography, including but not limited to such characteristics as steepness of slopes, existing drainage features, rock outcroppings, river and stream terraces, valley walls, ridgelines, and scenic topographic features
- g floodplains and floodways
- h. wildlife movement corridors.
- i. natural area buffer zones as delineated below.
- j the practical needs of approved construction activity in terms of ingress and egress to the developed project and necessary staging and operational areas.
- k hydrology and groundwater flow

(e.) Development Standards and Guidelines.

- (1) To the maximum extent feasible, no construction activity, including, without limitation, grading, excavation, or stockpiling of fill material shall be permitted within priority protection areas whether to provide for a building site, on-site utilities or services, or for any roads or driveways except as provided for below.
 - a. mitigation of development activities,
 - b. restoration of previously disturbed or degraded areas;
 - c emergency public safety activities and utility installations when such activities and installations cannot reasonably be contained to areas outside of those identified as significant,
 - d. construction of trails or pedestrian walkways that will provide access in an environmentally appropriate manner;
 - e. the enhancement of the habitat values and/or other natural resource values of a natural area.
- (2) Establishment of Buffer Zones Buffer zones shall be established adjacent to areas of priority protection. Such buffers may range in width from _____ feet to _____ feet. The (community) may increase or decrease the buffer zone requirement as reasonably appropriate under such circumstances. In establishing the buffer zone(s), the (community) shall consider and apply the following criteria:
 - a. the foreseeable impacts of development on the wildlife usage or ecological character or function of the natural area.
 - b the ecological and wildlife use characterization of the natural area.

- c. the existence of wildlife movement corridors
 - d. the extent of floodplains and floodways
 - e. the type, amount, and extent of existing vegetation on the site.
 - f. the existence of special wildlife habitat features
 - g. the character of the proposed development in terms of use, density, traffic generation, quality of runoff water, noise, lighting, and similar potential development impacts.
 - h. site topography, including but not limited to such characteristics as steepness of slopes, existing drainage features, ridgelines, and scenic topographic features
- (3) Mitigation of Disturbance While development is anticipated outside of priority protection areas, the applicant shall avoid disturbance to priority protection areas and undertake mitigation measures to restore any damaged or lost natural resource. Any such mitigation or restoration shall be roughly equivalent to the loss suffered by the community because of the disturbance, and shall be based on such mitigation and restoration plans and reports as have been requested, reviewed and approved by the (community).
- (4) Connections. If the development site contains priority protection areas that connect to other off-site areas of a similar nature, to the maximum extent feasible, the development plan shall preserve such connections. If priority protection areas lie adjacent to the development site, but such areas are not presently connected across the development site, then the development plan shall, to the extent reasonably feasible, provide such connection. Such connections shall be designed and constructed to allow for the continuance of existing wildlife movement between natural areas and to enhance the opportunity for the establishment of new connections between areas for the movement of wildlife.
- (5) Lakes, Reservoirs, and Ponds. If the development site contains a lake, reservoir, or pond, the development plan shall include such enhancements and restoration as are necessary to provide reasonable wildlife habitat and improve aesthetic quality in areas of shoreline transition and areas subject to wave erosion. The development plan shall also include a design that requires uniform and ecologically and aesthetically compatible treatment among the lots or tracts surrounding a lake, reservoir, or pond with regard to the establishment of erosion control protection and shoreline landscaping on or adjacent to such lots or tracts.

- (6) Design and Aesthetics Projects located within the Overlay District, shall be designed to complement the visual context of the natural area. Techniques such as architectural design, site design, the use of native landscaping, and choice of colors and building materials shall be utilized in such manner that scenic views across or through the site are protected, and manmade facilities are screened from off-site observers and blend with the natural visual character of the area
- (7) Stormwater Drainage/Erosion Control All stormwater drainage and erosion control plans shall meet the standards adopted by the (community) for design and construction and shall, to the maximum extent feasible, utilize nonstructural control techniques, including but not limited to.
- a limitation of land disturbance and grading;
 - b maintenance of vegetated buffers and natural vegetation;
 - c. minimization of impervious surfaces;
 - d. use of terraces, contoured landscapes, runoff spreaders, grass or rock-lined swales;
 - e. use of infiltration devices;

E.) Lot Averaging

The following is sample language allowing for lot averaging. This approach is a simple method to permit flexibility in lot size without requiring the more complex review process typically associated with clustering. Lot averaging would be an effective technique for smaller parcels (10-20 acres in size) proposed for land division where flexibility in lot size may help preserve resources. Effectiveness of the lot averaging technique will be further advanced if used in combination with a private road ordinance allowing for flexibility in road construction standards.

Section _____ Lot Averaging

The (community) recognizes that certain parcels contain wildlife, plant life, and/or other natural characteristics in need of protection and that varying lot sizes may assist in preserving these priority resources. The intent of this section is to permit the applicant to vary lot sizes and lot widths so as to average the minimum size of lot per unit as required in the schedule of regulations. However, lot averaging shall not create an attendant increase in the number of lots

- (1) To the maximum extent feasible, any land division proposed for lot averaging shall be designed and arranged to ensure that disturbance to any priority resource protection area as a result of the development, and that impacts and disturbance to such areas and the plants and wildlife inhabiting those areas shall be minimized through the use of natural area buffers, scenic easements, and creative lot arrangement.
- (2) In meeting the average minimum lot size, lot area or width shall be reduced by not more than (typically 10-25%) percent below that area or width required in the schedule of regulations
- (3) All computations showing lot area and the average resulting through this technique shall be indicated on the drawing which accompanies the land division application.
- (4) Approval of a lot averaging land division under this section shall be conditioned upon recordation of appropriate conservation easements, deed restrictions, and/or other instruments for the purpose of providing for long term maintenance and preservation of private roads, open space areas, wooded areas, and/or other areas with natural resources or features to be preserved on the property. Such instrumentation shall be in the form approved by the (community) attorney.

F.) Wetland/Natural Features Setback

A number of communities have adopted wetlands protection as part of their general ordinances, supplemented by natural features setback regulations in their zoning ordinance. Local Wetland Ordinances are authorized by the Wetlands Protection Section of Act 451, the Natural Resources and Environmental Protection Act of 1994. Natural features setback regulations are authorized by State zoning enabling statutes. These regulations are intended to offer increased local protection of wetlands not protected under state law, and to reduce impact upon natural features by limiting the proximity of disturbance. Below is an example of a wetland and natural feature setback ordinance modified from Independence Township in Oakland County, Michigan.

Section _____ Wetland Protection Ordinance

- (a.) **Purpose.** It is the purpose and intent of this article, in view of the findings specified above, to promote and maintain a harmonious and compatible land use balance within (the community) and to obviate the nuisance condition which would arise with the indiscriminate development of existing wetlands and watercourse areas; to provide for the protection, preservation, proper maintenance, and use of (community) wetlands and watercourses in order to minimize disturbance of and to them; to prevent damage caused by erosion, scarification, sedimentation, turbidity, and/or siltation; to provide for the protection of soils capable of providing necessary filtration for the maintenance of aquifer stability; to protect against loss of wildlife, fish, or other beneficial aquatic organisms, or vegetation, and also against the destruction of the natural habitat thereof; to minimize the phenomenon of environmental deterioration; to secure safety from the dangers of flood and pollution, to prevent loss of life, property damage and other losses and risks associated with flood conditions; to protect individual and community riparian rights; to preserve the location, character, and extent of natural drainage courses, and to provide for the enforcement of this article and coordination of the enforcement of appropriate local, county, and state ordinances or statutes and corresponding agencies.
- (b.) **Validity and necessity.** (The community) declares that this article is essential to the health, safety, economic, and general welfare of the people of (the community), and to the furtherance of the policy set forth in Article 4, Section 52 of the Constitution of the State of Michigan.
- (c.) **Construction and application.**
- (1) The following rules of construction apply in the interpretation and application of this article:
 - a. In the case of a difference of meaning or implication between the text of this article and any caption or illustration, the text shall control.
 - b. Particulars provided by way of illustration or enumeration shall not control general language.
 - c. Ambiguities, if any, shall be construed liberally in favor of the protection and preservation of natural resources.
 - (2) It is the intent of this article to promote flood protection, however, this article cannot be relied upon for determining where floods may occur.

- (d.) **Prohibitions.** It shall be unlawful for any person to do or assist in any of the following unless and until a written permit is obtained from (the community) pursuant to this article:
- (1) Deposit or permit to be deposited any material, including, without limitation, structures, into, within, or upon any wetland or watercourse area.
 - (2) Remove or permit to be removed any material from any wetland or watercourse area.
 - (3) Dredge, fill, or land balance bottomlands or wetlands.
 - (4) Enlarge, diminish, or alter a lake, stream, or any other naturally or artificially occurring waterway.
 - (5) Create, enlarge, or diminish any natural or artificially constructed canal, channel, ditch, lagoon, pond, lake, or other waterway for navigation or any other purpose, whether or not connected to an existing lake, stream, or watercourse.
 - (6) Erect, enlarge, or operate a private or public marina
 - (7) Construct, place, enlarge, extend, or remove a temporary, seasonal, or permanent operation or structure upon bottomlands or wetlands.
 - (8) Construct, extend, enlarge, or connect any conduit, pipe, culvert, or open or closed drainage facility erected for the purpose of carrying storm water runoff from any residential site of two (2) or more single-family residences or from a multiple residence, commercial site, parking area, paved or unpaved private or public road, or any other land use permitting discharge of silt, sediment, organic or inorganic materials, chemicals, fertilizers, flammable liquids, or any substance producing turbidity, except through an interceptor, retention or settling, filter or treatment facility designed to control and eliminate the pollutant before discharged to any lake, pond, stream, or watercourse, provided the design of such facility must first be approved by (the community) or the MDEQ.
 - (9) Construct, enlarge, extend or connect any private or public sewage or waste treatment plant discharge to any lake, pond, stream, water or drainage course, or wetland except in accordance with the latest requirements of and permit by the (county), State of Michigan, and/or the United States, to the extent that such entities have jurisdiction.
 - (10) Pump surface waters for irrigation or sprinkling of private or public uses other than for individually owned single-family residences from lakes, ponds, rivers, streams, or waterways except when the waterway is wholly contained within the user's property.
 - (11) Drain, or cause to be drained, any water from a wetland.

- (e.) **Activities not requiring a permit.** The following uses shall be allowed in a wetland without a permit subject to other applicable laws and ordinances and the owner's regulation.
- (1) Fishing, trapping, or hunting.
 - (2) Swimming or boating.
 - (3) Hiking
 - (4) Grazing of animals.
 - (5) Farming, horticulture, silviculture, lumbering, and ranching activities, including plowing, irrigation, irrigation ditching, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products, or upland soil and water conservation practices. Wetland altered under this subsection shall not be used for a purpose other than a purpose described in this subsection without a permit from (the enforcing agency).
 - (6) Maintenance or operation of serviceable structures in existence on the effective date of this article or constructed pursuant to this article.
 - (7) Construction or maintenance of farm or stock ponds.
 - (8) Maintenance, operation, or improvement that includes straightening, widening, or deepening of the following, which is necessary for the production or harvesting of agricultural products:
 - a. An existing private agricultural drain
 - b. That portion of a drain legally established pursuant to Michigan drain law which has been constructed or improved for drainage purposes
 - c. A drain constructed pursuant to other provisions of applicable law and ordinance.
 - (9) Construction or maintenance of farm roads, forest roads, or temporary roads for moving mining or forestry equipment, if the roads are constructed and maintained in a manner to ensure that any adverse effect on the wetland will be otherwise minimized.
 - (10) Drainage necessary for the production and harvesting of agricultural products if the wetland is owned by a person who is engaged in commercial farming and the land is to be used for the production and harvesting of agricultural products. Except as otherwise provided in this article, wetland improved under this subsection after the effective date of this ordinance shall not be used for non-farming purposes without a permit from the (community). This subsection shall not apply to a wetland that is contiguous to a lake or stream, or to a tributary of a lake or stream, or to a wetland which the (community) has determined by clear

and convincing evidence to be a wetland, which is necessary to be preserved for the public interest, in which case a permit shall be required.

- (11) Maintenance or improvement of public streets, highways, or roads, within the right of-way and in such a manner as to ensure that any adverse effect on the wetland will be otherwise minimized. Maintenance or improvement does not include adding extra lanes; increasing the right-of-way, or deviating from the existing location of the street, highway, or road
 - (12) Maintenance, repair, or operation of gas or oil pipelines and construction of gas or oil pipelines having a diameter of six (6) inches or less, if the pipelines are constructed, maintained, or repaired in a manner to ensure that any adverse effect on the wetland will be otherwise minimized.
 - (13) Maintenance, repair, or operation of electric transmission and distribution power lines and construction of distribution power lines if the distribution power lines are constructed, maintained, or repaired in a manner to ensure that any adverse effect on the wetland will be otherwise minimized.
 - (14) Operation or maintenance, including reconstruction of recently damaged parts, of serviceable dikes and levees in existence on the effective date of this article or constructed pursuant to this article.
 - (15) In cases where a permit is not required under Section 6(3) of Act 203 of the Public Acts of 1979, as amended, being MCL 281 706(3), involving activities permitted under Section 404 of Title 4 of the Clean Water Act of 1977, 33 USC, Section 1344.
- (f.) Application for permit.** Permits required under this article shall be issued only following the submission of an application to the (enforcing agency) as provided below, and review in accordance with this article:
- (1) Application for a (community) wetland permit shall be made on the form supplied by the Michigan Department of Environmental Quality.
 - (2) Each person applying for a (community) wetland permit shall make application directly with the (community).
 - (3) Upon receipt, the (community) shall forward a copy of each application to the Michigan Department of Environmental Quality.
 - (4) The (community), with the assistance of its consultants in those cases deemed by the (community) to be appropriate, shall review the application pursuant to this article.
 - (5) The application shall be modified, approved, or denied within ninety (90) days after receipt, subject to the following provision.

- (6) The applicant for an approval required in conjunction with site plan review or subdivision approval shall, at the time of submission, elect to have the application processed under either subparagraph a. or subsection b. as follows
- a. The wetland application shall be reviewed immediately, either prior to or concurrent with the review of the site plan, plat, or other proposed land use submitted by the applicant, with the understanding that the land use review may not be completed at the time the decision is rendered on the wetland application. Election of this alternative may require a re-opening of the wetland application if the land use approval is inconsistent with the wetland approval, or
 - b. The wetland application shall be reviewed and acted upon concurrent with the review of the site plan, plat, or other proposed land use submitted by the applicant, and the ninety-day review period limitation specified in Section 6(6) of Act 203 of the Public Acts of 1979, as amended, shall thereby be extended accordingly.
- (7) The denial of a permit shall be accompanied by a written reason for denial. The failure to supply complete information with a permit application may be reason for denial of a permit.

(g.) Application review.

- (1) General review procedure.
- a. For all proposed projects and/or activities not reviewed pursuant to subsection (b), below, and in cases where a hearing has been requested pursuant to the provisions of subsection (b), below, the following review process shall apply.
 - b. Upon receipt of an application, or upon request for a hearing, as the case may be, (the community department responsible for administration of wetland ordinance) shall forward the application to the board after verifying that all required supporting material is available. If it appears to the director of (the community department) that the expertise of the (community) consultant shall be necessary in order to review the application, for purposes of expediting the review, the director shall be authorized to obtain an escrow for consulting fees from the applicant and retain the (township consultant) or other wetland consultant for such purpose.
 - c. The board shall set a date for hearing on the application, and shall send notice of the time, date, and place of the hearing to the owners of property, based upon (community) records, within three hundred (300) feet of the property on which the proposed project or activity is to take place. Such notice shall also be sent to all (community) board members, and to all persons, subdivision associations, and lake associations registered with the (community) that are contiguous to the property and/or wetland affected. The notice shall include a summary of the

proposed project or activity, or a copy of the permit application. The board may further direct that notice of the hearing be published.

- d. At the scheduled hearing, the board shall consider the application, provide an opportunity for the applicant to address the board, and provide an opportunity for interested persons to address the matter. The hearing may be adjourned from time to time, as deemed necessary by the board, and, if it appears that impairment, pollution and/or destruction of a wetland or other natural resource may result, and that technical expertise is required, the board may require an environmental statement, environmental assessment, or environmental impact study to be provided by the applicant, or may submit the application to the (community) engineer or other consultant as deemed appropriate for examination and investigation upon payment by the applicant of the monies projected by such engineer or other consultant to be reasonably necessary to make an examination and investigation of the application and provide a report thereon.
 - e. Within a reasonable time following the completion of its consideration, the board shall make a written determination to issue the permit, issue the permit with specific conditions, or to deny issuance of the permit.
 - f. If the permit is issued, conditions imposed shall be for the purpose of ensuring that the project or activity complies with this article and/or results in minimum impact upon natural resources. The permit shall also specify a time period for commencement and completion of all activities. Additionally, the permit may require the posting of a cash bond or irrevocable letter of credit in a reasonable amount to ensure compliance with the permit.
 - g. Effectiveness of a permit shall be conditioned upon a signature of or on behalf of the applicant attesting to the following. All operations permitted or approved by this permit shall be conducted in such a manner as will cause the least possible impairment, pollution, and/or destruction of natural resources.
- (2) Special review procedure for certain projects and/or activities.
- a. If the project and/or activity is not otherwise reviewable by the (community) under any provision of the Zoning Ordinance or Ordinance Code, review shall be conducted in accordance with the provisions stated above, and in light of the standards and criteria set forth in subsection (c) of this section.
 - b. If the proposed project or activity is found to conform with the standards and criteria of subsection (c) of this section, and with all of the requirements of this article, a notice of intent to issue a permit shall be sent by first-class mail to the owners of property within three hundred (300) feet of the property on which the proposed project or activity is to

take place, based upon the records on file at the (community) Such notice shall also be sent to all members of the (community) board and the board and to all persons, subdivision associations, and lake associations registered with the (community) that are contiguous to the property and/or wetland affected The notice shall include either a copy of the permit application or a summary of the proposed activity or project, and a specification that it is the intent of the (community) to issue a permit unless a written request for an appeal is received within thirty (30) days from the date of mailing. The (department responsible for administration of the regulation) may also publish a summary of the proposed activity and intent to issue a permit in a newspaper of local circulation, specifying the required date within which a hearing must be requested, which date shall correspond to the end of the thirty-day period from the date on which the aforementioned notices were mailed. Any person interested in the activity and/or project may request that the application be reviewed pursuant to subsection (a) of this section. Such request shall be forwarded to the board, and the board shall either proceed with the application under subsection (a) of this section, or return the application for administrative review under subsection (b) of this section.

- (3) Review standards and criteria In arriving at a determination with respect to the issuance of a permit under this article, the director of (the community department responsible for administration of the wetland regulation) and/or the board shall take into consideration at least the following standards and criteria.
- a A permit shall be issued only if the proposed project or activity is clearly in the public interest, and is otherwise lawful in all respects
 - b In determining whether the activity is in the public interest, the benefit which would reasonably be expected to accrue from the proposal shall be balanced against the reasonably foreseeable detriments of the activity, taking into consideration the local, state, and national concern for the protection and preservation of natural resources from pollution, impairment, and/or destruction If, as a result of such a balancing, there remains a debatable question whether the proposed project and/or activity is clearly in the public interest, a permit shall not be issued The following general criteria shall be applied in undertaking this balancing test:
 - 1 The relative extent of the public and private need for the proposed activity
 - 2. The availability of feasible and prudent alternative locations and methods to accomplish the expected benefits from the activity.

3. The extent and permanence of the beneficial or detrimental effects which the proposed activity may have on the public and private use to which the area is suited, including the benefits the wetland provides.
 4. The probable impact of the proposal in relation to the cumulative effect created by other existing and anticipated activities in the watershed.
 5. The probable impact on recognized historic, cultural, scenic, ecological, or recreational values and on the public health or fish or wildlife
 6. The size and quality of the wetland being considered.
 7. The amount and quality of remaining wetland in the area.
 8. Proximity to any waterway
 9. Economic value, both public and private, of the proposed land change to the general area.
 10. The necessity for the proposed project.
- c. A permit shall not be issued unless it is shown that:
1. An unreasonable disruption will not result to aquatic resources; and
 2. The proposed activity is primarily dependent upon being located in the wetland; and
 3. A feasible and prudent alternative does not exist.
- d. The manner in which the activity is proposed to be undertaken will result in the minimum negative impact upon the wetland and attendant natural resources under all of the circumstances

(h.) Permit issuance and appeal.

- (1) A permit issued by the board after hearing shall not be effective until ten (10) days following the date of issuance.
- (2) Following approval of a wetland application, a wetland permit shall be issued upon determination that all other requirements of ordinance and law have been met, including site plan, plat, or land use approval, as applicable, and including issuance of a permit by the Michigan Department of Environmental Quality, if required under Part 303, Wetland Protection, of the Natural Resources and Environmental Protection Act of 1994, Act 451, as amended. In cases where a Michigan Department of Environmental Quality permit allows activities not

permitted by the wetland approval granted under this article, the restrictions of the approval granted under this article shall govern

- (3) An interested person who is aggrieved by the determination of the board may request an appeal of the board's decision to the (community) board
 - (4) A request for appeal must be filed within ten (10) days following the board's decision. If an appeal is requested during such ten-day period, the effectiveness of the permit shall be suspended pending the outcome of the appeal
 - (5) The (community) board shall determine whether to consider the appeal based upon the minutes of the board, or based upon an entirely new hearing. If a new hearing shall be conducted, notice of the time, date, and place of the hearing shall be mailed to the owners of property, based upon (community) records, within three hundred (300) feet of the property, and also mailed to all persons, subdivision associations and lake associations registered with the (community) to receive such notices.
 - (6) The procedure for the hearing shall be the same as set forth above, governing the procedure before the board.
 - (7) If the (community) board determines to consider the appeal based upon the minutes of the board, the applicant and other interested parties as allowed by the (community) board, shall be entitled to be heard by way of argument and citation of authorities prior to the board's determination.
 - (8) The (community) board, based upon its appellate review, may reverse, affirm, or modify the determination and/or permit issued by the board
- (i) **Permit contests.** The permit issued under this article shall contain at least the following:
- (1) The name and address of the person to whom the permit has been issued
 - (2) The name and address of the owner of the property on which the activity or operation shall occur.
 - (3) A statement of all conditions imposed in connection with the issuance of the permit
 - (4) The date by which any construction, removal, deposit, or operation must be completed, i.e., the expiration date of the permit.
 - (5) The amount of any cash bond or irrevocable letter of credit and the institution issuing such irrevocable letter of credit as determined necessary by the wetlands review board, or planning director, as the case may be, to ensure compliance with the permit as issued.
 - (6) A statement, countersigned by the permit holder, substantially conforming to the following:

All operations permitted or approved by this permit shall be conducted in such a manner as will cause the least possible damage and encroachment or interference with natural resources and natural processes within wetlands.

(7) The legal description of the parcel to which the permit pertains.

(j.) **Posting of permit.** Upon issuance of a permit, and prior to the undertaking of any on-site work, the person to whom the permit has been issued shall post a copy of the permit on the property in a conspicuous place, which is accessible for inspection and reading by the public.

(k.) **Fees.**

(1) With the filing of an application, a deposit shall be made payable to the (community) in the amount of three hundred dollars (\$300.00).

(2) If an environmental statement, environmental assessment, or an environmental impact study is required, a further deposit shall be made in an amount determined by the wetlands review board at the time the board imposes the requirement for such submission, based upon the nature and extent of the study.

(3) All amounts of deficiency shall be paid, and all amounts of overage shall be returned, prior to or concurrent with final action on the application.

If a permit is denied for a proposed wetland use, a land owner may appear at the annual board of review for the purpose of seeking a revaluation of the affected property for assessment purposes to determine its fair market value under the use restriction.

(l.) **Wetland mapping.**

(1) The (community) board has adopted a wetland map, showing an inventory of wetland within the municipality.

(2) Upon amendment of the wetland map, the township shall notify each record owner of property on the property tax roll of the township that the wetland map has been amended, where the map may be reviewed, and that the owner's property may be designated as a wetland on the inventory map, and that the township has an ordinance regulating wetland. Such notice shall also inform the property owner that the wetland map does not necessarily include all of the wetlands within the township that may be subject to the Wetlands Ordinance.

(3) The wetland map shall not create any legally enforceable presumptions regarding whether property that is or is not included on the inventory map is or is not in fact a wetland

(m.) **Mitigation.**

(1) Mitigation under this article shall be permissible only in an instance where it is determined that if a permit is not issued there would be no viable use of the property. Mitigation shall not be permissible when it is feasible and prudent to avoid impacts on the wetlands and concurrently make viable use of the property.

A finding shall be made that all feasible and prudent efforts have been made to analyze a use of the property without the necessity of the issuance of a permit which would require mitigation

- (2) If mitigation is permissible, as specified under subsection (1) above, the board or the director, as the case may be, may require mitigation as a condition to the issuance of a permit
- (3) Mitigation shall be designed to remove an impairment to the wetland benefits, to mitigate the impact of a discharge of fill material, or otherwise improve the water quality. Mitigation may be designed for the improvement of the existing wetland resources or the creation of new wetland resources to offset wetland resources lost as a result of the proposed project
- (3) As part of the authorization or direction of mitigation, financial assurances may be required in order to ensure that mitigation is accomplished as specified by the permit conditions, and that the mitigation remains successful for a reasonable period of time in the future
- (5) The mitigation plan shall be prepared by a qualified wetland consultant retained by the applicant and shall be reviewed by the (community's) wetland consultant utilizing the monies escrowed for such purpose by the applicant
- (6) If the board or the director, as the case may be, determines that it is practical to replace the wetland resource values which will be unavoidably impacted, the following criteria shall be utilized when reviewing the applicant's mitigation proposal:
 - a. Mitigation shall be provided on-site where practical and beneficial to the wetland resources.
 - b. If on-site mitigation is not practical and beneficial to the wetland resources, mitigation shall be provided in the immediate vicinity of the permitted activity where practical and beneficial to wetland resources. When possible, this means within the same watershed within the (community) as the location of the proposed project.
 - c. Only when it has been determined that mitigation as specified in subparagraphs (1) and (2) would be inappropriate and impractical may mitigation be considered elsewhere.
 - d. Any proposal shall ensure that, upon completion, there will be no net loss to the wetland resources.
 - e. The proposal shall give consideration to replacement of the predominant functional values lost within the impacted wetland.

- (a.) **Intent and purpose.** It is the intent of this section to require a minimum setback from natural features, and to regulate property within such setback in order to prevent physical harm, impairment, and/or destruction of or to a natural feature. It has been determined that, in the absence of such a minimum setback, intrusions in or onto natural features would occur, resulting in harm, impairment, and/or destruction of natural features contrary to the public health, safety, and general welfare. This regulation is based on the police power, for the protection of the public health, safety, and welfare, including the authority granted in the Zoning Enabling Act.

It is the purpose of this section to establish and preserve minimum setback from natural features, in order to recognize and make provision for the special relationship, interrelationship, and interdependency between the natural feature and the setback area in terms of: Spatial relationship; interdependency in terms of physical location, plant species, animal species, and an encouragement of diversity and richness of plant and animal species; over land and subsurface hydrology; water table; water quality; and erosion of sediment deposition.

If a greater setback or prohibition is required by other ordinance, or other provision of this ordinance, such greater setback or prohibition shall apply.

- (b.) **Regulation.** A natural feature setback shall be maintained in relation to all areas defined in this Ordinance as being a "natural feature," unless, and to the extent, it is determined to be in the public interest not to maintain such setback.
- (c.) **Definition of "natural feature."** A natural feature shall mean a wetland, as defined in the (Community) Wetlands Ordinance, and shall mean a watercourse, including a lake, pond, river, stream, or creek.
- (d.) **Authorization and prohibition.**
- (1) The natural feature setback shall be an area or feature with boundaries and limitations determined in accordance with the standards and provisions in this section in relation to respective types of natural features.
 - (2) In conjunction with the review of plans submitted for authorization to develop property or otherwise undertake an operation in or on, or adjacent to, a natural feature, applicable natural feature setbacks shall be determined, and authorizations and prohibitions established, by the body of officials undertaking the plan review. In the event an activity is proposed within a setback area as designated below, but such activity is not proposed in conjunction with an activity within the natural feature itself, review under this section shall be conducted by the (community) body or official reviewing the proposed activity, or, if no other review is required, review shall be undertaken by the (department responsible for administration of the regulation). The body or official undertaking the review shall, if determined necessary or appropriate by such body or official, utilize the services of a wetland consultant, and, in such case, the applicant shall establish an escrow and shall be responsible for the fees of such consultant.

- (3) Within an established natural feature setback, unless and only to the extent determined to be in the public interest by the body undertaking plan review, there shall be no construction, removal, or deposit of any structures or soils, including dredging, filling, or land balancing. This prohibition shall not apply with regard to those activities exempted from this prohibition, below.
- (4) In determining whether proposed construction or operations are in the public interest, the benefit which would reasonably be expected to accrue from the proposal shall be balanced against the reasonably foreseeable detriments of the construction or other operation, taking into consideration the local, state, and national concern for the protection and preservation of the natural feature in question. If, as a result of such a balancing, there remains a debatable question whether the proposed project and/or operation is clearly in the public interest, authorization for the construction and/or operation within the natural feature setback shall not be granted. The following general criteria shall be applied in undertaking this balancing test:
 - a. The relative extent of the public and private need for the proposed activity
 - b. The availability of feasible and prudent alternative locations and methods to accomplish the expected benefits from the activity.
 - c. The extent and permanence of the beneficial or detrimental effects which the proposed activity may have on the public and private use to which the area is suited, including the benefits the natural feature and/or natural feature setback provides.
 - d. The probable impact of the proposed construction and/or operation in relation to the cumulative effect created by other existing and anticipated activities in the natural feature to be protected.
 - e. The probable impact on recognized historic, cultural, scenic, ecological, or recreational values, and on fish, wildlife, and the public health
 - f. The size and quantity of the natural feature setback being considered.
 - g. The amount and quantity of the remaining natural feature setback.
 - h. Proximity of the proposed construction and/or operation in relation to the natural feature, taking into consideration the degree of slope, general topography in the area, soil type, and the nature of the natural feature to be protected
 - i. Economic value, both public and private, of the proposed construction and/or operation, and economic value, both public and private, if the proposed construction and/or operation were not permitted.
 - j. The necessity for the proposed construction and/or operation.

- (e.) **Exemptions.** If and to the extent the (community) is prohibited by its ordinances and/or law from regulating to proposed activity in or on the respective natural feature, regulation under this section shall be exempted. In addition, the following activities shall be exempted, provided, it is not the intent of this provision to exempt regulation by other ordinance provisions relative to the natural feature itself.
- (1) Installation of a fence within a setback area.
 - (2) Maintenance of previously established lawn areas
 - (3) Grading and filling necessary in order to conform with express requirements imposed by the (community) Engineer.
 - (4) Installation of seasonal recreational structures for watercourse use
 - (5) Planting of trees and other vegetation, but not the use of fertilization.
- (f.) **Application form.** Application shall be made under this section on the form approved by the (community) board and provided by the (department responsible for administration of the ordinance).
- (g.) **Setback standards.** Unless otherwise determined by the body undertaking the plan review, the following setbacks shall apply:
- (1) A twenty-five-foot setback from the boundary or edge of a wetland, as defined and regulated in the (Community) Wetland Ordinance
 - (2) A twenty-five-foot setback from the ordinary high water mark of a watercourse.
- (h.) **Appeals.**
- (1) An interested person who is aggrieved by the determination under this section may request an appeal to the (community) board.
 - (2) A request for appeal must be filed within ten (10) days following decision. If an appeal is requested during such ten-day period, the effectiveness of the permit shall be suspended pending the outcome of the appeal
 - (3) The (community) board shall determine whether to consider the appeal based upon the minutes of the body making the initial decision (if minutes are kept), or based upon an entirely new hearing. If a new hearing shall be conducted, notice of the time, date, and place of the hearing shall be mailed to the owners of property, based upon (community) records, within three hundred (300) feet of the property, and also mailed to all persons, subdivision associations, and lake associations registered with the (community) to receive such notices.
 - (4) If the (community) board determines to consider the appeal based upon the minutes of the person or body being reviewed, the applicant and other interested parties, as allowed by the (community) board, shall be entitled to be heard by way of argument and citation of authorities prior to the board's determination.

- (5) The (community) board, based upon its appellate review, may reverse, affirm, or modify the determination and/or permit issued.

G.) Tree Preservation Standards

These model regulations will require a permit for various activities of tree removal of any tree that is six inches in caliper or greater, or disturbance of a landmark tree. The ordinance also sets forth certain exceptions from the requirements of this ordinance for normal and customary maintenance activities. Projects involved with site plan and/or subdivision plat review will incorporate the evaluation of woodland resources in the course of the normal review. Therefore, no separate process will be required in these instances.

Section _____. Tree Preservation Requirements

- (a) **Intent.** The (community) finds that continued development and increasing demands upon natural resources have had the effect of encroaching upon, despoiling, or eliminating many of the trees, vegetation, natural resources, and processes within the (community). If preserved and maintained in an undisturbed and natural condition, trees and natural vegetation constitute important physical, aesthetic, recreational, environmental, and economic assets to existing and future residents of the (community)

Specifically, the (community) finds that trees and natural vegetation.

- (1) Protect public health through the absorption of air pollutants and contamination, and the purification of air including the reduction of excessive noise and damage related to noise pollution, the reduction of the carbon dioxide content, and increase in the oxygen content of the air,
 - (2) Protect the general welfare of the (community) by maintaining natural beauty, recreational opportunities, wildlife habitat, and irreplaceable heritage for existing and future (community) residents,
 - (3) Protect public safety by stabilizing the soil and promoting soil conservation, erosion control, and flood control;
 - (4) Contribute to the maintenance and stabilization of property values.
- (b) **Purpose.** The purposes of this Section are as follows:
- (1) To provide for the protection, conservation, proper maintenance, and use of trees and woodlands in order to minimize disturbance to them and to prevent damage from erosion and siltation, a loss of wildlife, and/or minimize the destruction of the natural habitat;
 - (2) To protect the trees and woodlands within the (community) for their economic support of property values when allowed to remain uncleared and/or unharvested, in whole or in significant part, and for their natural beauty, character, ecological, or historical significance;
 - (3) To provide for the paramount public concern for these natural resources in the interest of the health, safety, and general welfare of the residents of this (community) in keeping with Article IV, Section 52 of the Michigan Constitution of 1963, and the intent of the Michigan Environmental Protection Act, Act 127 of the Public Acts of 1970.

- (c.) **Definition of Terms.** The following definitions shall apply.
- (1) **Activity.** Shall mean any use, operation, development, or action caused by any person, including but not limited to, constructing, operating, or maintaining any use or development, erecting buildings or other structure; depositing or removing material, dredging; ditching; land balancing, draining or diverting of water, pumping, or discharge of surface water, grading, paving, tree removal or other vegetation removal; excavation, mining, or drilling operation
 - (2) **Agriculture/farming.** Shall mean any land in which the principal use is to derive income from the growing of plants and trees, including, but not limited to, land used principally for fruit and timber production
 - (3) **Commercial nursery/tree farm.** Shall mean any commercial establishment that is licensed by the state or federal government for the planting, growing, and sale of live trees, shrubs, plants, and plant materials for gardening and landscaping purposes
 - (4) **Development.** Shall mean man-made change to improved or unimproved real estate including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations.
 - (5) **D.B.H.** Shall mean diameter at breast height or the diameter in inches of a tree measured at four (4) feet above the existing grade
 - (6) **Land Clearing.** Shall mean those operations where trees and vegetation are removed and which occur previous to construction or building; e.g. road right-of-way excavation, utility excavation, grubbing, and any other necessary clearing operation.
 - (7) **Landmark Tree.** Shall mean a tree of the Genus and/or species and diameter listed in Section K of this Section, and any tree of twenty-four (24") inches D B H. or greater.
 - (8) **Person.** Shall mean any individual, firm, partnership, association, corporation, company, organization, or legal entity of any kind conducting operations within (community), including all tree removal companies and persons removing trees on behalf of others.
 - (9) **Remove or Removal.** Shall mean the act of removing a tree by digging up or cutting down, or the effective removal through damage to the tree or its root system.
 - (10) **Transplants.** Shall mean the digging up of a tree from one place on a property and the planting of the same tree in another place.
 - (11) **Tree.** Shall mean any woody plant with at least one well-defined stem and having a minimum D.B.H. of three (3) inches.

(d.) **Exceptions.** Notwithstanding the requirements of Section e., the following activities are allowed without application for a tree permit, unless otherwise prohibited by statute or ordinance:

- (1) Tree removal on occupied, single family residential property of less than five acres, on which a valid certificate of occupancy has been issued;
- (2) All agricultural/farming operations or commercial nursery/tree farm operations;
- (3) Activities of utility companies or public tree trimming agencies,
- (4) The removal of dead trees where the damage resulted from an accident or non-human cause;
- (5) The trimming or care of trees provided that the work is accomplished in accordance with standardized forestry and horticultural practices as established by the American Association of Nurserymen or the National Arborist Association,
- (6) Actions made necessary by an emergency such as tornado, windstorm, flood, freeze, dangerous and infectious insect infestation, or other man-made or natural disaster, in order to prevent injury or damage to persons or property;
- (7) Tree removal in order to perform maintenance or repair of lawfully located roads, sewers, structures, and of facilities used in the service of the public to provide transportation, electric, gas, water, telephone, telecommunication, or other services
- (8) Improvement or maintenance of the Huron/Clinton/Shiawassee Rivers or their tributaries when such operations are organized or sponsored by the (community)/County and are specifically intended to preserve natural resources. Such activities shall include, but not limited to. a) removal of materials which may cause diverted flows and bank erosion, including the removal of trees, brush, and debris; b) bank stabilization projects which require minimal disturbance of existing conditions; and c) wildlife and aquatic habitat improvement projects.

(e.) **Tree Application and Permit Required.** It shall be a violation of this Section for any person, except as otherwise provided herein, to remove, cause to be removed, transplant, or destroy a tree within the (community) without applying for and receiving a tree permit, issued in accordance with this section.

- (1) A tree permit shall be required for the following except as otherwise exempted under Section e:
 - a. The removal, transplanting, or destruction of any tree with a D.B.H. of six (6) inches or greater on any property.
 - b. The removal, transplanting, or destruction of a Landmark Tree.

- (2) Applications for a tree permit shall be filed with the (community). When a site is proposed for development necessitating review and approval of a site plan, a special use approval, a planned unit development, or a subdivision plat, said application for a tree permit shall be made at the same time as such other related application. The application for a tree permit shall consist of the following:
- a Three (3) copies of the tree permit application,
 - b A tree location survey in a form acceptable to the (community) that shall bear the following information and details:
 - 1. Minimum scale of 1" = 50' The scale shall be the same as a related site plan.
 - 2. The shape and dimensions of the lot or parcel, together with the existing and proposed locations of structures and improvements, including existing and proposed utilities.
 - 3. Locations and dimensions of all setbacks and existing or proposed easements.
 - 4. All trees of six (6) inches D.B.H. or greater on the project site shall be tagged in the field with identifying numbers, using non-corrosive tags.
 - 5. Exact locations of all existing trees, determined by actual field survey, of six (6) inches D.B.H. or greater, including trees within the adjoining street right-of-way and all trees to be affected by the development, such as trees located within areas of right-of-way improvements or off-site utility work. All such trees proposed to remain, to be relocated, or to be removed, shall be so designated and the numbered trees shall be identified by size (D.B.H.), grade at the base of each tree, and crown spread to scale. Such verified information shall be provided by a registered land surveyor or civil engineer. The survey shall be accompanied by a separate key identifying the numbered trees by size and common name. This information must be provided by a registered landscape architect, certified arborist, or forester, through an on-site inspection, who must verify the contents by seal or signature, whichever applies.
 - 6. If existing trees are to be relocated, the proposed location for such trees, together with a statement as to how such trees are to be moved, protected, and/or stored during land clearance and construction and how they are to be maintained after construction.

7. A statement showing how trees to remain are to be protected during land clearance, construction, and on a permanent basis including the proposed use of tree wells, protective barriers, tunneling, or retaining walls.
 8. The number of trees to be removed that are of six (6) inches D B H or greater
 9. The requirements for a tree location survey may be waived by the (community) for areas fifty (50) feet or more outside the construction zone. If waived, a statement indicating predominant species and estimated number and size of trees in this area shall be required. The area to remain undisturbed shall be snow fenced prior to any activity.
- c. An on-site examination shall be made by the (community) in lieu of the tree location survey under any of the following conditions.
1. Where a permit is requested to remove or transplant trees on a lot of more than one acre, which is zoned for single family purposes and upon which is located an occupied one family dwelling; or,
 2. Where a permit is requested in connection with the construction of a one family dwelling on a lot that is more than one acre, zoned for single family purposes, and which is not located within a subdivision for which a final plat has been approved subsequent to the effective date of this section; or,
 3. Where a permit is required to remove three (3) or fewer trees.
- (f.) Review of Tree Permit.** The (community) shall process a tree permit application as follows:
- (1) The (community) Woodlands Administrator shall review the tree permit application to verify that all required information has been provided. At the request of the applicant or the (community) Planner, an administrative meeting may be held to review the proposed application in light of the purpose and review standards of this Section.
 - (2) Upon receipt of a complete application, the (community) Woodlands Administrator may conduct or authorize the completion of a field investigation to review and verify the accuracy of information received. The receipt of a tree permit application shall constitute permission from the owner of the property to conduct such on-site investigation.
 - (3) If a tree permit application relates to a proposed development or activity on a site necessitating site plan review, special land use, planned unit development, or plat approval by the (community), the (community) shall consider said application

concurrent with its review of the related site plan or other approval. If the (community) and Board approves a site plan which conforms with the requirements of this Section, that approval together with any additional terms and conditions attached thereto, will be considered to have fulfilled the requirements for a tree removal permit.

- (4) When a tree permit application is not related to a development or activity necessitating review and approval of the (community), the (community) Woodlands Administrator shall be responsible for granting or denying the application.
- (5) Any person denied a tree permit by the (community) Woodlands Administrator may appeal to the (community). An appeal must be filed with them, in writing, within ten (10) days of the date of mailing of the decision being appealed. The (community), upon review, shall determine, with findings, whether or not there has been compliance with the requirements and standards of this Section and based upon its findings, it may reverse or modify the decision rendered by the (community) Woodlands Administrator.
- (6) Whenever an application for a tree permit is granted, the (community) shall.
 - a. Attach to the granting of the tree permit any reasonable conditions considered necessary to ensure that the intent of this Section will be fulfilled;
 - b. Affix a reasonable time to carry out the activities approved in the permit, and
 - c. Require the permit grantee to file with the (community) cash bond or irrevocable bank letter of credit in an amount determined necessary to ensure compliance with tree permit conditions and this Article.

(g.) **Review Standards.** The following standards shall govern the granting or denial of an application for a tree permit for property that does not otherwise qualify for a mandatory tree permit pursuant to Section h:

- (1) The preservation and conservation of trees, woodland areas, wildlife, and related natural resources and processes shall have priority over development when there are feasible and prudent location alternatives on the site for proposed buildings, structures, or other site improvements.
- (2) Where the proposed activity consists of land clearing, it shall be limited to designated street rights-of-way, drainage and utility areas; and areas necessary for the construction of buildings, structures, or other site improvements.
- (3) Where the proposed activity involves residential development, residential units shall to the extent reasonably feasible, be designed and constructed to blend into the natural setting of the landscape.

- (4) The proposed activity shall comply with all applicable statutes and ordinances and shall be evaluated concerning its effect on adjacent properties, the scenic assets, and regarding wind block and noise buffer factors
- (5) The proposed activity shall include necessary provisions for tree relocation or replacement in accordance with Section J of this Article.
- (6) Tree removal or transplanting shall be limited to the following instance:
 - a. When removal or transplanting is necessary for the construction of a building, structure, or other site improvement, and the permit applicant has shown there is no feasible and prudent location alternative on-site for a proposed building, structure or other site improvement; or,
 - b. The tree is dead, in decline, in danger of falling, is located too close to existing buildings or structures, interferes with existing utility service or drainage, creates unsafe vision clearance, or does not conform to other (community) ordinances or regulations

(h.) Applications That Qualify for a Mandatory Permit.

- (1) Where a permit has been requested with regard to non-residential property for which a valid certificate of occupancy has been issued that is less than five (5) acres in area, for the removal or transplanting of three (3) or less trees of six (6) inches D.B.H. or more within a calendar year. This provision shall not apply to Landmark Trees.
- (2) Where a permit has been requested with regard to occupied property for which a valid certificate of occupancy has been issued that is more in area for the removal or transplanting of eight (8) or less trees of six (6) inches D.B.H. or more within a calendar year. This provision shall not apply to Landmark Trees.

(i.) Tree Protection Prior to and During Construction.

- (1) Prior to construction and/or land clearing, the applicant shall do the following:
 - a. All trees for which application is being made for removal shall be so identified on-site by red flagging tape prior to field inspection by the (community) Woodlands Administrator. Trees selected for transplanting shall be flagged with a separate distinguishing color.
 - b. Construction limit fencing shall be erected that restricts access to protected areas and tree protection devices shall be installed where required over tree roots, branches, and/or tree trunks. All tree protection fencing and tree protection devices shall be installed as approved by the (community) Woodlands Administrator.

- c Fences and tree protection devices installed shall be maintained and all construction materials, supplies, and equipment shall be kept outside of the protected areas.
- (2) During construction, the applicant shall do the following:
- a Maintain all fences and tree protection devices as approved by the (community) Woodlands Administrator and refrain from causing or permitting any activity near said trees including, but not limited to, the storage of equipment, supplies, excavation materials, disposal of fuels, solvents, or chemicals, or causing the disturbance of any soils or vegetation within protected areas without the prior approval of the (community) Woodlands Administrator.
 - b No damaging attachments, wires (other than cable wires for trees), signs, or permits may be fastened to any tree protected by this Section.
- (3) The (community) Woodlands Administrator shall conduct periodic inspections of the site during land clearing and/or construction in order to ensure compliance with this Section.

(j.) Replacement or Relocation of Trees. Whenever a tree permit allows removal of trees of six (6) inches D.B.H. or greater, the permit grantee shall relocate or replace the trees, except as provided in subparagraph (5) below, on a one-to-one basis and all replacement trees must measure two and one-half (2 1/2") inch diameter-or greater measured six (6") inches above grade. In lieu thereof, the (community) and the permit grantee may agree to replacement trees of varying diameters so long as the market value of said trees would approximate the value of the replacement trees, which would be required in accordance with the above formula. In addition:

- (1) Replacement trees shall have shade potential and other characteristics comparable to the removed trees, and shall be State Department of Agriculture nursery grade NO. I or better. All replacement trees, or transplanted trees must be approved prior to planting and must be planted in standards for planting and transplanting, including, but not limited to, staking, mulching, and watering. All nursery stock and transplanted trees shall be guaranteed for one (1) year.
- (2) The (community) shall approve tree relocation or replacement locations in order to provide optimum enhancement, preservation, and protection of woodlands areas. To the extent feasible and desirable, trees shall be relocated or replaced on-site and within the same general area as trees removed.
- (3) Where it is not feasible and desirable to relocate or replace trees on-site, relocation or replacement may be made at another approved location in the (community).

- (4) Where it is not feasible and desirable to relocate or replace trees on-site or at another approved location in the (community), the tree permit grantee shall pay into the (community) Tree Fund, which fund is hereby created, an amount of money approximating the current market value of the replacement trees that would otherwise be required. The (community) shall use the Tree Fund for the purpose of maintaining and preserving wooded areas, for planting and maintaining trees within the (community), and for expenses related to the administration and enforcement of this Section.
- (5) Replacement trees shall not be required for a tree that is removed pursuant to a tree permit granted pursuant to either Section e. or for a reason described in paragraph 6.(b) of Section h.

(k.) Landmark Trees.

- (1) All trees within the (community) of twenty-four (24") inches D.B.H. or greater and all trees listed below by Genus and/or species of the listed minimum size D.B.H shall be considered Landmark Trees, unless an applicant submits an Affidavit from a registered landscape architect, certified arborist, or forester that the tree is in such ill health that its anticipated life expectancy is less than five (5) years:

COMMON NAME	BOTANICAL NAME	SIZE D.B.H.
Arborvitae	Thuja	18"
Beech	Fagus	18"
Birch	Betula	18"
Black Gum	Nyssa sylvatica	12"
Blue Beech	Carpinus caroliniana	8"
Cedar, Red	Juniperus virginiana	12"
Chestnut	Castanea	10"
Crabapple	Malus	12"
Dogwood	Comus	8"
Douglas Fir	Pseudotsuga meesii	18"
Fir	Abies	18"
Ginkgo	Ginkgo	18"
Hawthorn	Crataegus	12"
Hemlock	Tsuga	18"
Hickory	Carya	18"
Hornbeam	Astray	8"
Horse Chestnut/ Buckeye	Aeschylus glabra came	18"
Kentucky Coffeetree	Gyrnnocladus dioicus	18"
Larch/Tamarack	Larix	12"
London Plane/ Sycamore	Platanus	18"
Magnolia	Magnolia	8"
Maple, Red	Acerrubrum	18"
Maple, Norway	Acerplatanoides	18"
Pine	Pinus	18"

Redbud	Cercis canadensis	8"
Sassafras	Sassafras albidum	15"
Serviceberry	Amelanchier	8"
Spruce	Picea	8"
Sweetgum	Liquidambar styraciflua	16"
Tulip Tree	Liriodendron tulipifera	18"
Walnut	Juglans	20"
Wild Cherry	Prunus	18"
Witch Hazel	Hamamelis virginiana	8"

*If a birch tree has multiple trunks, then its total D.B.H shall be computed by adding the D.B.H. in inches of each of the trunks.

(2) When Landmark Trees are permitted to be removed, in addition to compliance with the provisions of Section k, replacement trees shall be provided to a minimum of thirty (30%) percent of D.B.H. of the tree to be removed. Replacement trees, measured in D.B.H or calipers, shall be provided either individually or on an accumulative basis to meet the thirty (30%) percent D B H requirement, however, if on an accumulative basis all individual trees shall measure at least two and one-half (2 1/2 ") inch diameter.

(l.) **Fees.** Applications for a tree permit under this section shall be accompanied by a non-refundable administrative application fee in an amount specified from time to time by resolution of the (community) Board. In addition, an applicant may be required to pay an additional escrow fee in an amount determined by the (community) to pay for the estimated cost of any needed outside consultant(s) who may be retained by the (community) in connection with the review of the application. In the event the cost of the services of the consultant(s) is less than the escrow fee, the applicant shall be refunded the balance. In the event the cost of the services of the consultant(s) exceeds the amount of the escrow fee, the applicant shall pay the deficiency to the (community) prior to the issuance of a tree permit. A denial of an application for a tree permit shall not affect the applicant's obligation to pay the escrow fee provided for in this Section.

(m.) **Civil Fee for Illegally Removed Trees.** In addition to any penalty provided for in the event of a conviction for a violation of this Section, and notwithstanding whether or not the (community) has commenced a civil suit for injunctive relief, any person who removes or causes any tree to be removed except in accordance with this Section shall forfeit and pay to the (community) a civil fee equal to the total value of trees illegally removed or damaged as computed from the International Society of Arboriculture shade tree value formula. The civil fee shall accrue to the (community) and, if necessary, the (community) may file a civil action to recover such fee. The (community) shall place any sum collected in the (community) Tree Fund. Alternatively, the (community) may require replacement of illegally removed or damaged trees as restitution in lieu of such fee. Replacement will be on an inch-to-inch basis computed by adding the total diameter measured at D.B.H. in inches of the illegally removed or damaged trees. The (community) may use other reasonable means to estimate the tree loss if destruction of the illegally removed or damaged trees prevents exact measurement. The (community) may also require a combination of civil fee payment and tree replacement.

- (n.) **Injunction.** Any activity conducted in violation of this Section is declared to be a nuisance per se, and the (community) may commence a civil suit in any Court of competent jurisdiction for an order abating or enjoining the violation.
- (o.) **Stop-Work Order.** The (community) may also issue a stop-work order or withhold issuance of a certificate of occupancy, permits, or inspections until the provisions of this Section, including any conditions attached to a tree permit, have been fully met. Failure to obey a stop-work order shall constitute a violation of this Section.
- (p.) **Approved Site Plans and Plats.** This Section shall not apply to a site plan or plat that has received final approval prior to the effective date of this Section, so long as the site plan or plat remains in effect and in good standing pursuant to this ordinance.

H.) Private Road Ordinances

Private roads can be an effective tool to allow reasonable and safe access to properties while avoiding some of the grading, increase in impervious surfaces, and tree removal often associated with public road standards. When coupled with Planned Unit Developments and/or open space development ordinances, private road regulations can be used as an incentive for more creative, environmentally compatible development and serve to aid in more effective stormwater management

Section. _____ Private Road Regulations

- (a.) **Intent.** The (community) recognizes that, due to the specific requirements of any given development, application of adopted public road design standards may result in development with excessive paving and grading, increased stormwater runoff, and loss of vegetation. It is also the intent of this Ordinance to recognize that stormwater runoff has been traditionally treated as a by-product of development to be disposed of as quickly and efficiently as possible. The result has often been increased flooding, degradation of water quality, soil erosion and sedimentation, and a failure to capitalize on the benefit of creative stormwater management. However, unobstructed, safe, and continuous vehicle access to lots is necessary to promote and protect the public health, safety, and welfare to ensure that public services can safely enter and exit private property at all times.

It is the intent of this Ordinance to permit access to the interior of certain properties within the (community) by private roads that are subject to minimum standards and specifications. These standards and limitations are intended to permit unobstructed, safe, and continuous vehicle access, as well as, encourage road design standards which will result in the reduction of impervious surfaces and the preservation of vegetation, in order to more appropriately manage stormwater. It is further the intent of this Ordinance to ensure that private roads are maintained and repaired by the private property owners, who own and use the road.

The procedures, standards, and specifications hereinafter set forth are determined to be the minimum procedures, standards, and specifications necessary to meet the intent of this ordinance.

(b.) **Definitions.**

- (1) **Easement** - The right of an owner of property by reason of such ownership, to use the property of another for purposes of ingress, egress, utilities, drainage, and similar uses. In the context of this Ordinance, private road easements shall be designated for purpose of vehicle ingress and egress.
- (2) **Private Road** - An area of land that is privately owned, provides vehicular access to more than one (1) lot and has not been dedicated to public use other than access by emergency and public safety vehicles, and is maintained by its private owners
- (3) **Public Street or Right-of-Way** - A public or dedicated right-of-way, which affords the principal means of vehicular access to abutting property and which is under public ownership or control.

- (4) **Private Road Administrator** - An official appointed by the (community) to administer the Private Road Ordinance.

(c) **Permit Application and Review Requirements.** Each application for a private road shall be accompanied by completed plans prepared and sealed by civil engineer or land surveyor registered in the State of Michigan, which include the information contained herein. Where the required information is incorporated in the overall site plan of a development, separate road plans shall not be required.

The application and plans for a private road shall include the following information:

- (1) The names and addresses of the lot or parcel owners to be served by the private road.
- (2) A vicinity map of a minimum scale of one inch equals two thousand feet (1" = 2,000'), showing the location of the private road in the Township, any access roads and cross streets, road names, a scale, and a north arrow.
- (3) Existing topography at two (2) foot contour intervals for the portions of the site sufficient to determine drainage from the private road easement to a suitable storm water outlet.
- (4) Proposed improvements (including but not limited to, roads, sewers, and ditches) shown in plan and profile indicating all materials, grades, dimensions, and bearings in compliance with the standards set forth in Attachment A. The plans shall also show all existing and proposed grades, the location of all existing and proposed drainage facilities, the location of existing and/or proposed utilities and structures, other structures, physical or natural conditions existing adjacent to such improvements, and any connections to existing public and private roads.
- (5) Soil borings within the proposed route of the road. Tree coverage and wetland areas within one hundred (100) feet of either side of the proposed route.
- (6) Location of existing buildings on the lots or parcels being served or intended to be served by the private road, as well as, any existing building or structures in or adjacent to any proposed road easement.
- (7) Plans shall show the existing or proposed location of private utilities and easements, such as gas, telephone, and electric.
- (8) A complete statement of all the terms and conditions of the proposed road easement, including copies of all agreements or intended agreements regarding the maintenance and improvements of the right-of-way and roadway. Furthermore, said maintenance agreements shall be in such form as to be recordable with the County Register of Deeds and shall specifically address the liability and responsibility of the parties to said agreement to maintain the private road pursuant to the specifications of this article, including, but not limited to, the responsibility of removing snow from said private roads. The recorded statement which runs with the land, shall also inform subsequent purchasers that the road is

private and may never be maintained or accepted by the County Road Commission

- (9) Appropriate deed restrictions and/or master deed provisions shall provide for free and clear vehicular access for emergency service vehicles on all private roads

(d.) Design Standards.

- (1) The design and construction of all private roads shall comply with the most currently published American Society of Highway Traffic Officials (ASHTO) standards for the criteria applicable to the private road, subject to the approval of the (community) Engineer (see attachment A). If the private road provides direct access to a county road, approval of the road connection, placement, and design must be approved by the County Road Commission prior to (community) approval.

- (2) Notwithstanding any other provisions of the Ordinance, private roads in subdivisions platted prior to the enactment of this Ordinance and private roads or easements that are contained in land divisions approved by the (community) prior to the enactment of this Ordinance, shall continue to meet the specifications approved at the time of application. Upon expansion, reconstruction, or major alteration of an existing private road, new construction shall comply with the most currently published American Society of Highway Traffic Officials (ASHTO) standards for the criteria applicable to the private road. The (community) Engineer shall determine if this provision is met.

- (e.) Inspection.** Prior to the initiation of construction, a pre-construction conference will be held with the applicant, (community) Engineer, and Private Road Administrator. Evidence of issuance of County Road Commission and soil erosion control permits shall be provided by the applicant at the time of the meeting.

All required improvements shall be inspected by the (community) Engineer or designated (community) official at various stages of construction. The (community) Engineer or Private Road Administrator shall make a final inspection upon completion of construction and shall report the results of the final inspection to the (community) in writing. The applicant's engineer shall certify to the (community), before the final inspection and report thereon are made, that the required improvements were made in accordance with this article and all approved plans.

The costs of inspection, including compensation of the (community) Engineer or (community) official shall be paid by the applicant prior to the issuance of the certificate of completion. The (community) shall establish and determine the costs of inspection. If the applicant does not directly pay the costs of inspection, the same shall be paid from the deposit established by the (community) and held by the (community), and the balance, if any, shall be returned to the applicant.

(f.) Permit Approval Procedure.

- (1) Upon receipt of an application, the Private Road Administrator shall bring the application before the (legislative body) at its next regular meeting. The

(legislative body) may refer the application to the Planning Commission and any other appropriate body for review and comment

- (2) The (community) Engineer shall report in writing to the (legislative body) as to whether or not the proposed private road conforms to the standards and specifications of this Ordinance. Said report may include any suggested conditions to be attached to the Permit that, in the Engineer's judgment, are necessary to achieve the intent of this Ordinance.
- (3) The (legislative body) shall consider the application, the Engineer's report, and all other relevant information in determining whether to grant the Permit application. If the information submitted by the applicant does not establish that the proposed private road will conform to the standards and specifications of this Ordinance, the (legislative body) shall not grant the Permit. The (legislative body) shall impose such conditions on the approval of the Permit as it deems necessary to achieve the intent and objectives of this Ordinance, which may include, but need not be limited to, conditions suggested by the Engineer. The breach of any such condition proposed by the (legislative body) shall automatically invalidate the Permit.
- (4) As a condition to the granting of any Permit under this Ordinance, the (legislative body) shall require that the applicant deposit with the Private Road Administrator a sum of money, bank letter of credit or certified check, in an amount sufficient to guarantee that the applicant shall perform the terms and conditions of the permit, including the payment of required fees. Upon completion of all improvements required by this Ordinance, any unused portion of the deposit shall be refunded to the applicant.
- (5) Upon receipt of the required deposit and predetermined fees and approval, the Private Road Administrator shall issue the Permit pursuant to the terms established by the (legislative body) approving the application.
- (6) Only the (legislative body) shall have the authority to approve or deny applications for permits. No other permit issued by any Official or other governmental body or official shall be a substitute for a Permit.

(g.) Variances.

- (1) Variances may only be granted by the (community) upon the finding that at least one of the two following conditions have been met:
 - a. That a variance or exemption is required in order to comply with conflicting County or State laws, rules, or regulations
 - b. That there are such special circumstances or conditions affecting said property that strict application of the provisions of this Ordinance would clearly be impractical or unreasonable. This may include topographic, vegetative, or drainage conditions.

- (2) In order to grant a variance, the (community) shall also find:
- a. That the granting of the variance will not be detrimental to the public welfare or injurious to other property in the area in which said property is situated.
 - b. That such variance or exemption will not have the effect of nullifying the intent and purpose of this Ordinance, the Master Plan, or the Zoning Ordinance.
- (h.) **Violations.** Any person who violates any provision of this article shall be guilty of a misdemeanor and shall be subject to a fine not exceeding five hundred dollars (\$500 00) or by imprisonment not exceeding ninety (90) days, or both such fine and imprisonment. Any access that is used in violation of the terms of this article be and the same is hereby declared to be a nuisance per se, and such use may be abated, restrained, enjoined, and prohibited, upon the commencement of an appropriate action in the court of competent jurisdiction
- (i.) **Fees.** The (legislative body) shall establish by resolution a fee schedule to defray costs of inspection, plan review, administration, and enforcement of this article.
- (j.) **Severability.** The provisions of this ordinance are severable and any decision by any Court of competent jurisdiction that any provision or clause hereof is invalid shall not affect the validity of the remainder of this ordinance.
- (k.) **Compliance with Other Statutes, Ordinance Order, or Regulation.** Nothing in this Ordinance is intended to permit any practice which is a violation of any statute, ordinance, order or regulation, and no provision contained in this ordinance is intended to impair or abrogate any civil remedy or process whether legal or equitable which might otherwise be available to any person.
- (l.) **Effective Date.** This ordinance was adopted by the (legislative body) at a regular meeting thereof held on the day of and shall become effective thirty days after publication

Attachment A

Minimum Private Road Standards As Per the American Society of Highway Traffic Officials (ASHTO)

1.	Average Daily Traffic Volumes (ADT)	9.5 vehicles per day per single family detached dwelling, 8 vehicles per day per each attached dwelling unit.
2.	Design Speed	20 mph
3.	Stopping Sight Distance	125 feet
4.	Vertical Alignment	0.5% minimum 10.0% maximum
5.	Horizontal Alignment	100 ft minimum radius
6.	Right-of-Way Width	With ditches: 60 feet, 100-ft. diameter at cul-de-sacs; With curb & gutter: 50 feet, 100-ft. diameter at cul-de-sacs
7.	Road Width (width of pavement, edge to edge)	ADT less than 250: 18 feet ADT over 400: 20 feet
8.	Shoulder Width (graded slope)	Shoulders not required with curb & gutter; otherwise: ADT less than 400: 2 feet (each side) ADT over 400: 4 feet (each side)
9.	Curb and Gutter	Concrete curb and gutter permitted
10.	Cul-de-Sacs	66-foot diameter minimum - to edge of pavement (not including shoulders or curb & gutter) -islands permitted when road is paved -islands must include curb & gutter
11.	Intersection Offsets	Private road intersections shall be directly aligned with other streets or roads, or offset at least 250 feet from a public road or offset at least 125 feet from a private road (measurement from centerline to centerline)
12.	Road Surface	Less than 5 houses: 7 inches compacted thickness of 21AA, 22A, or 23A gravel Five (5) or more houses: 3 inches of bituminous surface, placed in two courses over a 7-inch gravel base of 6-inches of concrete

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|-----|--------------------------------------|---|
| 13 | Sub-Base | Six (6) inches of compacted Class II sand On-site material may be used if laboratory analysis indicates that it meets specification requirements. Sub-base not required for concrete pavement |
| 14. | Drainage | Ditches 2'-0" minimum depth from centerline, IV, 3H front and back slopes; 2' bottom width Culverts/Storm Sewers. Pipe must comply with MDOT Standard Specifications Provide minimum 2-foot of cover over pipe at road crossings End sections must be provided at culvert ends. |
| 15. | Horizontal Clearance to Obstructions | All trees and other objects must be removed from the roadway to the back slope of the ditch 1' above the ditch bottom |
| 16 | Erosion Control/Restoration | All areas disturbed by construction must be topsoiled, seeded, and mulched. Steep slopes may require sod or riprap Temporary erosion control measures must be utilized. |
| 17 | Private Road Sign | Each private road shall be identified with a sign at each intersection These signs shall be distinguishable from public street signs |
| 18. | Traffic Control Devices | Provide stop signs and street signs at entrance and interior intersections (comply with MMUTCD Manual) Provide a speed limit sign (5 MHP less than the design speed) following each intersection, located 100' to 200' from the intersection Provide pedestrian crossing signs at all trail/walkway crossings |
| 19. | County Road Commission Approval | If the private road intersects a County road, a permit for the approach must be obtained from the County Road Commission prior to Township review A copy of the permit shall be attached with the application. |

Source: Hamburg Township Private Road Ordinance as taken from the American Society of Highway Traffic Officials (ASHTO)

3.) Open Space Acquisition and Protection

A.) Model Conservation Easement

Many of the tools and techniques outlined in the report call for permanently protected open space. If the promise of protected open space is not ensured over the longer term, community distrust of various open space development and preservation techniques will work against their effectiveness as a land use tool.

A very effective option is the use of conservation easements. In order to use a conservation easement a non-profit land trust or other entity that is agreeable to holding and enforcing the easement must be identified. The advantages of a conservation easement are that the open space will be protected permanently, and the easement holder is an organization committed to open space protection.

DATE: _____

DONORS: (Name and Address - Hereinafter the "Donors")

**INTENDED SUCCESSOR
IN INTEREST:** (Name and Address - Hereinafter the "Partnership")

(Name and Address - Hereinafter the "Association")

CONSERVANCY: (Name and Address - Hereinafter the "Conservancy")

PROPERTY: Land located in the (community), Michigan, which is more particularly described in the legal description, attached hereto and hereby made a part hereof

CONVEYANCE: The Donors grant, convey, and warrant to the Conservancy a perpetual Conservation Easement over the Property. The scope of this Conservation Easement is set forth in this agreement. This conveyance is a gift from the Donors to the Conservancy.

CONSERVATION VALUES: The Property possesses natural, scenic, open space, scientific, biological, and ecological values of prominent importance to the Donors, the Conservancy, and the public. These values are referred to as the "Conservation Values" in this easement.

PURPOSE OF THIS CONSERVATION EASEMENT:

A. The Donors are committed to preserving the Conservation Values of the Property. The Donors have entered into a land contract, as vendor, with the Partnership, as vendee, to sell the Property to the Partnership. It is the intention of the Partnership to develop single family residential subdivisions on other property being purchased from Donors, which is adjacent to the Property, and, upon completion thereof, to convey the Property to the Association which will thereafter assume the benefits and obligations of this Conveyance and Agreement. Both the

Partnership and the Association acknowledge and agree that they have consented to the terms and conditions of this conveyance and that upon delivery of title to the Property, each of them, as its respective period of ownership of the Property, will assume, in each instance, the obligations under this Agreement. This Conservation Easement ensures that the Property will be hereafter perpetually preserved in its current condition of predominately natural, scenic, historic, agricultural, forested, and open space. Any use of the Property that may materially impair or interfere with the Conservation Values is expressly prohibited. Donors agree not to use the Property for activities inconsistent with the purposes of the easement and preservation of the Conservation Values.

B. The Conservancy represents that it is a tax-exempt, non-profit Michigan corporation qualified under Internal Revenue Code Section 501(c)(3). The Conservancy protects natural habitats of fish, wildlife, plants, or similar ecosystems. The Conservancy also preserves open spaces where such preservation is for the scenic enjoyment of the general public or pursuant to clearly delineated governmental conservation policies and where it will yield a significant public benefit.

C. The Property has some or all of the following specific Conservation Values:

(A detailed description of resource characteristics should be included here citing specific natural communities, any rare plant species, any biological surveys, Element Occurrence Ranking, and any studies that have been conducted.)

THE PARTIES AGREE TO THE FOLLOWING TERMS OF THIS CONSERVATION AGREEMENT:

1. **PROHIBITED ACTIONS.** Any activity on or use of the Property inconsistent with the purposes of this Conservation Easement which results in a material detriment to the Conservation Values is expressly prohibited. By way of example, the following activities and uses are explicitly prohibited:

a. Commercial Activities. Commercial or industrial activity is prohibited.

b. Construction. The placement or construction of any man-made modifications, such as buildings, structures, fences, roads and parking lots is prohibited, except for storm drainage structures and facilities related to storm water detention or drainage, required and approved by applicable governmental agencies, including, without limitation, the Department of Environmental Quality (and any successor agency performing substantially similar functions to those currently performed by said Department) so long as said Department has been apprised of the existence of this Conveyance and the Purpose set forth above. (Note, those fences planned for delineation of buffer zone boundaries will be allowed.)

c. Cutting Vegetation. Any cutting of trees or vegetation is prohibited, except management activities which will require the joint approval of Donors, the Conservancy, and (community)

d. Land Surface Alteration. Any mining or alteration of the surface of the land is prohibited.

e. Dumping Waste and unsightly or offensive materials are not allowed and may not be accumulated on the Property

f. Water Courses. Natural water courses, lake shores, wetlands, or other water bodies may not be altered, except for storm drainage structures and facilities related to storm water detention or drainage, required and approved by applicable governmental agencies generally, and any requirements of (community) under its special use approval permit.

g. Off Road Vehicles and other instrumentalities. Motorized off-road vehicles, such as snowmobiles, dune buggies, all terrain vehicles, motorcycles, and any other instrumentality which may damage or alter the appearance, character, or function of the Property may not be present, operated, or used on the Property, except for maintenance activities utilizing vehicles, and with the reasonable approval of the Conservancy. (It being understood that the Association shall have the right to take emergency action without apprising the Association, if necessary, to preserve the purposes of this conveyance.)

h. Billboards/Signs. Billboards and signs are prohibited. Signs of a size and type as are approved by the Conservancy may, however, be displayed to state.

The name and address of the Property

The owner's name.

The area protected by this Conservancy Easement.

Prohibition of any unauthorized entry or use, including "no hunting" and "no trespassing" signs.

An advertisement for the sale or rent of the Property.

i. All Other. This list is provided by way of example and shall not be used or interpreted as a means of limiting the actions which are a material detriment to the Conservation Values as herein enumerated generally, and in particular those actions which (community) may deem to violate its Ordinances.

2. RIGHTS OF THE CONSERVANCY. The Donors confer the following rights upon the Conservancy so that it may monitor the status of, and the activities on, the Property, so that the Conservation Values of the Property will be perpetually maintained.

a. Right to Enter. The Conservancy has the right to enter the Property at open space entry points at reasonable times to monitor or to enforce compliance with this Conservation Easement. The Conservancy may not, however, unreasonably interfere with the Donor's use and quiet enjoyment of the Property. The Conservancy has no right to permit others to enter the Property for any purpose other than its Members, employees, or agents for the purposes permitted by this Conservation Easement, nor shall the Conservancy have the right to enter adjacent properties for access to the Property.

b. Right to Preserve. The Conservancy has the right to utilize lawful procedures to prevent any activity on or use of the Property that is inconsistent with the purposes of this easement.

c. Right to Restore. The Conservancy has the right to restore the areas or features of the Property that are damaged by activity or occurrences inconsistent with this Conservation Easement

d. Signs The Conservancy has the right to place signs on the Property that identify the land as being protected by this Conservation Easement. The design, method of installation, number, color, size, and location of any signs are subject to Donor's approval

All permitted activities conducted at the Property by the Conservancy shall be done at the sole expense of the Conservancy and the Conservancy hereby indemnifies and holds the Donor harmless from and against any and all construction liens, which may be recorded against the Property as a result of activities conducted at the Property by, or on behalf of, the Conservancy.

3. PERMITTED USES. Donors retain all ownership rights that are not expressly restricted by this Conservation Easement. In particular, the following rights are reserved.

a. Right to Convey. The Donors retain the right to sell, mortgage, bequeath, or donate all or part of the Property. Any conveyance will remain subject to the terms of this Conservation Easement and the subsequent owner or owners will be bound by all obligations in this agreement.

b. Right to Enter The Donors retain the right to permit lot owners of (project name) to enter the Property for pedestrian access. Any pathways of any type that may be developed however, must be approved by the Conservancy, which approval shall not be unreasonably withheld

4. CONSERVANCY REMEDIES. This section addresses cumulative remedies of the Conservancy and limitations on these remedies.

a. Conservancy's Discretion. The Conservancy, in its sole and exclusive discretion, may, but shall have no contractual or other duty to, enforce, forbear or delay to exercise its rights under this Conservation Easement. A delay in enforcement shall not be construed as a waiver of the Conservancy's right to eventually enforce the terms of this Conservation Easement.

b. Acts Beyond Donors' Control. The Conservancy may not bring an action against the Donor for modifications to the Property resulting from causes beyond the Donor's control. Examples are: unintentional fires, storms, natural earth movement, trespassers, or even a Donor's well-intentioned actions in response to an emergency resulting in changes to the Property. The Donors have no responsibility under this Conservation Easement for any unintended modifications, including, but not limited to, the foregoing examples.

c. Notice and Demand If the Conservancy determines that the Donors are in violation of this Conservation Easement, or that a violation is threatened, the Conservancy will provide written notice to the Donors. The written notice will identify the violation and request corrective action to cure the violation or to restore the Property. Copies of all notices from any party will also be provided to (community).

d. Unreasonable Litigation If unreasonable litigation or counter claims are initiated by either the Donors or the Conservancy in respect to this Conservation Easement, and if the court determines that such litigation or counter claims were frivolous, then the court may require the party so found by the court to reimburse the other party's reasonable costs and attorney fees in defending such action.

e. Donors' Absence. If the Conservancy determines that this Conservation Easement is, or is expected to be violated, the Conservancy will make good-faith efforts to notify the Donors. If, through reasonable efforts, the Donors cannot be notified, and if the Conservancy determines that circumstances justify prompt action to mitigate or prevent impairment of the Conservation Values, then the Conservancy may, at its own expense, pursue its lawful remedies without prior notice and without awaiting any action by the Donors.

f. Actual or Threatened Non-Compliance. Donors acknowledge that actual or threatened events of non-compliance under the Conservation Easement constitutes immediate and irreparable harm. The Conservancy is entitled to invoke the equitable jurisdiction of the court to enforce this Conservation Easement.

g. Actions Against Third Parties. Either the Donors or the Conservancy may initiate actions against those third parties threatening or violating the conservation values of this Easement. Any such action shall be at the cost of the party initiating same.

h. Cumulative Remedies. The preceding remedies of the Conservancy are cumulative, but only the above remedies may be invoked by the Conservancy if there is an actual or threatened violation of this Conservation Easement and Donor shall not be responsible for any violation of this Conservation Easement which is not caused by Donors or agents of Donors.

5. OWNERSHIP COSTS AND LIABILITIES. In accepting this Easement, the Conservancy shall have no liability of a contractual nature or otherwise, or other obligation for costs, liabilities, taxes, or insurance of any kind related to the Property, other than for activities conducted at the Property by the Conservancy, at its sole election, as permitted by the terms of this Conservation Easement. The Conservancy, its members, directors, officers, employees, and agents have no liability arising from injury or death to any person or physical damage to any property on the Property.

(OPTIONAL PROVISION)

With the creation of a conservation agreement, the developer may chose to have the Conservancy assume maintenance responsibilities for the area to be conserved. In this case, an optional provision may be added to the conservation agreement which provides the conservancy with an annual sum based on the number of lots within the development to be used for the costs associated with any improvements or inspections it may make.

6. MAINTENANCE COSTS. The Property is adjacent to (name of project). The (name of project) is intended to contain ___ lots, more or less. The Partnership agrees to pay Conservancy, (or its successors and assigns), commencing on the date when the final plat for the first phase is recorded, an annual sum of (\$___) per lot for each Subdivision for which a plat has

been recorded. The foregoing sum shall be prorated for any partial calendar year during which said obligation is in effect. The Conservancy shall place one-half of such amounts in a restricted fund to be used only for improvements to the Property. The other one-half is to be used by the Conservancy for inspection of the Property, and to the extent such inspections are provided by its volunteers, then the Conservancy may use such money for its ongoing costs or any other purpose. Starting in (____) and in four year intervals thereafter, the (\$____) payment amount will be inflation adjusted by the indicators used by the federal government for the prior four years. This maintenance cost shall burden the easement and pass with conveyance of the land and easement to the successors and assigns of the Partnership and Association.

The Conservancy acknowledges that it shall give fair and reasonable consideration, upon request from the Partnership or the Association, to utilize a portion of the foregoing restricted funds for any action to be subsequently initiated by the Partnership or the Association to preserve the Conservation Values of the Property.

7. **CESSATION OF EXISTENCE.** If the Conservancy shall cease to exist or if it fails to be a "qualified organization" such that the Conservancy is no longer authorized to acquire and hold conservation easements, then this Conservation Easement shall become vested in another qualified entity, to be selected by (community), its successor, or assign. It is the present intention of the parties, and for the guidance of (community) that the Conservancy's rights and responsibilities shall be assigned first to an Oakland County conservancy and then to any other Michigan organization to which such rights may be awarded under the *cy pres* doctrine.

8. **TERMINATION.** This Conservation Easement may be extinguished only by an unexpected change in condition which causes it to be impossible to fulfill the Conservation Easement's purposes, or by exercise of eminent domain.

a. Unexpected Change in Conditions. If subsequent circumstances render the purposes of this Conservation Easement impossible to fulfill, then this Conservation Easement may be partially or entirely terminated only by judicial proceedings. The Conservancy will then be entitled to compensation in accordance with law and regulation.

b. Eminent Domain. If the Property is taken, in whole or in part, by power of eminent domain, then the Conservancy will be entitled to compensation in accordance with law and regulation.

c. Default. In the event of any default by the Conservancy under its obligations under this Agreement and failure to remedy same within thirty (30) days after notice in writing to the Conservancy specifying the nature of said default, Donor reserves the right to, seek judicial termination of this Conservation Easement pursuant to notice in writing to the Conservancy advising the Conservancy, or its successors and assigns, of such election. In such event, upon recording of an Affidavit by the Donors setting forth the nature of the default and the failure of the Conservancy to cure same within a reasonable time period, the Donor may seek judicial confirmation of said default and its right to terminate the rights of the Conservancy hereunder. Upon termination of the Conservancy's rights, a successor shall be named in accordance with Paragraph 7 above. The sole remedy for a default by the Conservancy hereunder shall be its removal as the holder of this Conservation Easement.

9. LIBERAL CONSTRUCTION. This Conservation Easement shall be liberally construed in favor of maintaining the Conservation Values of the Property and in accordance with law and regulation and so that lot owners in the adjacent (name of project) shall have the benefit of the Conservation Values

10. NOTICES. For purposes of this agreement, notices may be provided to either party by personal delivery or by mailing a written notice to that party (at the address shown at the top of this agreement, or at last known address of a party) by First Class mail. Service will be complete upon depositing the properly addressed notice with the U.S. Postal Service with sufficient postage. Copies of all notices will also be provided to (community)

11. SEVERABILITY. If any portion of this Conservation Easement is determined to be invalid, the remaining provisions will remain in force.

12. SUCCESSORS. This Conservation Easement is binding upon, and inures to the benefit of, the Donors' and the Conservancy's successors in interest and is not intended to abridge or lessen the obligations of the Partnership under the provisions of that certain Land Contract, dated _____, by and between Donors, as Seller, and the Partnership, as Purchaser, pursuant to which the Property is being sold to the Partnership. It is intended, however, that once the Partnership obtains title to the Property, the Partnership's interest therein will subsequently be conveyed to the Association. The Association By-Laws shall recognize the burdens and benefits of the Easement, and in particular the By-Laws shall provide that the Donor's grant of the Property to the Association shall include the burden that the Association shall assess \$20 per year from each lot owner which shall be paid forthwith to the Conservancy. Further, the Association agrees to use its best efforts to enforce payment of the lot owners' obligation for maintenance costs so that the payments due to the Conservancy, pursuant to Paragraph 6 above, shall be made on a timely basis. It is further acknowledged that Donors have executed this Agreement for the sole purpose of evidencing their commitment to preserve the Conservation Values of the Property. In no event shall Donors have any obligation to the Conservancy to perform any affirmative act with respect to the Property during the period between the date hereof and the date on which title of the Property is conveyed by Donors to the Partnership. By executing this Agreement, the Partnership acknowledges it is responsible to perform such obligations during the period between the date of execution hereof and the date on which title to the Property is conveyed to the Association and agrees to indemnify Donors against any loss or damage arising out of any claim by the Conservancy that the Partnership has failed to perform such obligations

13. TERMINATION OF RIGHTS AND OBLIGATIONS. A party's future rights and obligations under this easement terminate upon transfer of that party's interest in the Property. Liability for acts or omissions occurring prior to transfer will survive the transfer.

14. MICHIGAN LAW. This Conservation Easement will be construed in accordance with Michigan Law

15. ENTIRE AGREEMENT. This conservation Easement sets forth the entire agreement of the parties. It is intended to supersede all prior discussions or understandings.

SIGNATURE AND ACKNOWLEDGMENT PAGES

B.) Transfer of Development Rights

Transfer of Development Rights (TDR) is an open space preservation tool designed to steer development to appropriate areas that can support more density, and preclude development from those areas of great ecological importance. It is also a tool that may be very effective when used in combination with the Resource Protection Overlay District. This can be done by using the "Preservation Area" as the area within the overlay district and the "receiving district" as an area outside of the overlay district, which is more capable of supporting development. Currently, the State of Michigan does not have specific enabling legislation for Transfer of Development Rights ordinances at the local level. Communities are advised to consult with local counsel to determine if there is sufficient authority to adopt a TDR ordinance. The following ordinance language is based upon St. Petersburg, Florida's highly successful law which utilizes density credits as the basic unit for the transfer of development rights from a property.

(a.) Transfer of Development Rights.

(1) Density Credits

- a. Residential density credits may be transferred from a Preservation Area (or the area within the Resource Protection Overlay District) designated by the (community) as a sending district to abutting land in the same ownership, where permitted, or to appropriate receiver districts as designated by the (community).
- b. When density credits from a Preservation Area have been moved or transferred off a site, the Preservation Area may be used to meet open space requirements of the abutting development, provided that the development is in the same ownership or control and is made an integral part thereof.
- c. The density credit transferable from a Preservation Area shall not be calculated from that portion of the Preservation Area within a public road right-of-way. No density credit shall be transferable from any property where development is prohibited by State or federal regulations.
- d. Available density credits within a Preservation Area sending parcel shall be determined by calculating the available density of the site based upon conventional layout. The conventional layout of the site shall be determined by the submission of a concept site plan of the property by the applicant requesting density credits. The concept plan depicting conventional layout shall indicate the topography of the site at two-foot contour intervals and the limits of all floodplains, water bodies, wetlands, easements, and other areas which would be set aside and preserved due to impracticality, economic unfeasibility, contractual prohibition, or based upon applicable law or ordinance. In addition, the concept plan with the conventional layout shall include the general street pattern and lot configurations. The concept plan and the available density credits shall not exceed the number of dwelling units customarily developable in the Zoning District in which the proposed development is located, as developed with a conventional layout, and under all applicable ordinances and laws observed.

- e. There shall be no transfer of density from or to submerged land. Where development rights have previously been transferred from a sending parcel, no additional development rights shall be transferable from that sending parcel or approved on the sending parcel.

(2) On-Site Transfer of Density Credit

- a. Where the Preservation Area is zoned to permit residential uses, transfer of density credits to abutting land shall be limited to the number of units which would be permitted on that area as per the Ordinance
- b. In cases where density credits are transferred from Preservation Areas to abutting land, the Preservation Areas shall be legally restricted through deed restrictions, conservation easements, or other mechanism approved by the (community) to ensure permanent preservation.

(3) Off-site Transfer of Density Credits

- a. Generally The portion of Preservation Areas zoned (community designated zoning) that is preserved in their natural state and not developed, altered, or improved, shall be eligible for density credits for dwelling units as indicated in this section. Such credit may be transferred only to receiving districts and only upon receipt of approval as described in this section

b. Density Credit Certificates

- 1. An owner of a Preservation Area within an appropriate district may transfer density from the Preservation Area in accordance with the provisions of this section, and all other (community) ordinances.
- 2. An owner of a Preservation Area within an appropriate district shall be entitled to Density Credit Certificates in the number established by this section.

Once Density Credit Certificates are issued, the Preservation Areas from which the certificates transfer development shall not be developed; however, the Preservation Area may be used to meet open space requirements of abutting development under the same control or ownership.

- 3. An owner of a Preservation Area within an appropriate district may obtain Density Credit Certificates by applying to the (community) for such Certificates upon forms approved by the (community). An applicant who desires to obtain Density Credit Certificates for density from a Preservation Area shall submit to the (community) as part of the application, a concept site plan illustrating conventional layout with all information as noted in

Section (1) paragraph d of this article This site plan will serve to determine the total number of density credits available on the site The application for Density Credit Certificates must be approved by the (community)

4. The (community) may issue Density Credit Certificates with the condition that the applicant guarantees the preservation as natural open space for all of the land indicated in the submitted site plan. The applicant shall guarantee the preservation as natural open space all of the land in the manner designated by the (community). Such guarantee of preservation shall be by one of the following methods where all methods are appropriately executed and recorded.
 - i Convey an interest (i.e.: fee simple, lease, easement, etc.) to the (community), with the approval of the (community), subject to appropriate deed restrictions and covenants running with the land to provide for the preservation of the land as natural open space.
 - ii Convey an interest (i.e.: fee simple, lease, easement, etc.) to the County, State, or federal government or other entity committed to the preservation of the land subject to appropriate deed restrictions and covenants running with the land to provide for the preservation of the land as natural open space which interest, entity, and form of conveyance must be acceptable to the (community)
 - iii. Execution and recordation of appropriate deed restrictions and covenants running with the land to provide for the preservation of the land as natural open space

All title transfers, covenants, deed restrictions, easements, and leases shall be approved by the (community) Attorney

(4) Transfers of Density Credit Certificates.

- a. An owner of Density Credit certificates, who is properly registered as an owner with the (community) and who wishes to use the density credit rights evidenced by the Certificates to transfer residential density credit to a particular parcel of land, shall make application for such transfer and use of density credits on the receiving parcel in accordance with the requirements of the receiving district and other (community) ordinances. The owner of the receiving parcel must have the approval of the (community) before density credits may be used.
- b In order to aid in maintaining a reasonable balance between the number of uncanceled Density Credit Certificates and the capacity of the receiving

districts, the (community) will periodically evaluate the situation and report the findings to the (community).

- c. A current register of available Density Credit Certificates that have been authorized shall be maintained by the (community).
- d. Receiving districts. Zoning districts to which development rights are transferable shall be limited to the (community designated zoning districts).
- e. Density Credit Certificates may be sold, transferred, or conveyed from one person to another. Certificates indicating the number of units owned by each owner shall be issued by the (community).