4.0 Land Reclamation and Landscaping Guidelines

These guidelines establish minimum standards for the reclamation of land within Glastonbury which has been or will be disturbed by construction activities. The reclamation of all areas disturbed by construction is required to ensure that the land is restored to a stable landscaped condition that will preserve and enhance the natural beauty of the community, prevent soil erosion and excess runoff, prevent the degradation of surface water quality and control the growth of noxious and unsightly weeds.

Contractors are required to follow these guidelines to the same extent as landowners. It is the landowner's responsibility to notify their contractors of the guidelines and to require in their contracts that these reclamation guidelines be followed.

4.1 Minimum Reclamation Standards

Reclamation activities should be included in the initial planning of every project. The most important element in successfully restoring and landscaping a site disturbed by construction is having sufficient topsoil to support the growth of grass, shrubs and trees. Topsoil in this area is thin and extremely valuable because it is in such short supply. Non-organic subsoil, or topsoil indiscriminately mixed with subsoil, will not usually support the growth of healthy and attractive vegetation. Landowners and their contractors are therefore responsible for removing and preserving the topsoil on areas of their property to be disturbed prior to the beginning of construction, replacing the topsoil after construction and then seeding, mulching, irrigating and controlling runoff, erosion and weed growth until healthy vegetation is reestablished.

4.2 Surface Preparation

Topsoil should be stripped and stockpiled from the area intended to be disturbed by construction activity prior to starting any excavation. The topsoil stockpile should be located out of the area to be disturbed by the construction activities and out of natural drainage swales or water courses. Landowners are advised to seed the topsoil pile with annual rye to reduce the growth of noxious and unsightly weeds and minimize wind erosion during the time that the topsoil remains stockpiled, unless it is to be replaced immediately.

Landowners or contractors who are trenching for underground pipes or utilities should place topsoil to one side of the trench and subsoil to the other side. The topsoil will then be available separate from the subsoil for restoring the surface during backfilling operations. Topsoil should not be used for bedding underground pipes or wires and should not be mixed with non-organic subsoil.

4.3 Replacement of Topsoil

All areas disturbed by construction activities shall be reclaimed by replacing topsoil, reestablishing vegetation, eradication or controlling the growth of noxious weeds and preventing soil erosion, excess runoff and the degradation of surface water quality.

After construction, the areas to receive topsoil shall be cleared of all debris, large rocks, roots, stumps and other material which would be foreign to the natural landscape.

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Waste organic material cleared from the site must be hauled to an approved landfill, or buried or burned on-site. If material is buried or burned on-site, the disturbed areas shall also be part of the reclamation project.

Piles of boulders, rock, rubble and excavated waste material shall be reclaimed in the aftermath of all construction projects. These remains are prone to erosion and the propagation of weeds and are unsightly and many in the community find them to be objectionable and a nuisance. Excess excavated material from construction must be graded, contoured, attractively landscaped and reclaimed with topsoil and new vegetation. However, landowners may elect to discretely stockpile some boulders or rocks out of sight for use in future construction, attractive landscaping or drainage control, provided that it is not allowed to become a nuisance or eyesore.

4.4 Waste Material Burning

For material to be burned on-site, the landowner must obtain an outdoor burn permit from local authorities before commencing any burning activities and the burn area must be reclaimed in accordance with these guidelines. No hazardous or toxic material including plastics may be burned. No burning should occur during excessive dry or windy periods and care must be taken not to allow fires to burn out of control or escape from the landowner's property. All burning shall be conducted in accordance with *Section 5.02 Fire Rules* of the ~~Covenants~~Restated Covenants.

4.5 Finish Grading

Prior to the replacement of topsoil, the areas shall be graded, raked and contoured to the shape of the final landscape. The areas should be rough graded to create the final landscape contours with the subsoil to prevent use of excessive quantities of topsoil to fill in depressions and form a smooth surface appearance. Smooth, gradual slopes in the surface contours of the site should be provided around the building, in naturally occurring drainage swales and over other areas of the site to enhance the movement of surface storm water runoff (such as rain water off the roofs of buildings) and to prevent the accumulation of water against building foundation walls. Areas next to buildings up to 5-feet away shall be graded to drain water away from the building. Rough grading work should not be undertaken when the native soil is excessively wet, muddy or prone to clumping or rutting.

After rough grading is completed, topsoil shall be spread and raked to a uniform thickness equal to the original condition or a minimum of at least 3 to 4 inches. As noted above for the rough grading, finish grading of the topsoil should not be done during rainy weather or when the soil is muddy.

Following the placement of topsoil, for ease of future maintenance and contribute to the desired appearance, the area should be raked smooth and cleared of all rocks, sticks, roots and foreign debris which would inhibit the growth of grass. Variations in a uniform slope that cause depressions in excess of 3 inches across 10 feet of grading will tend to hold surface water and become muddy patches.

Placement of additional topsoil may be required to repair areas where the subsoil has settled due to inadequate compacting of the backfill deposited during construction activities, such as excavated trenches or around foundation walls. Where these repairs to

the graded contours become necessary, the placement of subsoil backfill material should be considered to bring the ground surface to the desired elevation prior to the placement of additional topsoil.

4.6 Seeding Mulching and Irrigating

Freshly graded areas should be seeded with the proper blend of grass seed at the recommended application rate (refer to *Section 4.9 Grass Seed Mixture and Application Rates Recommendations* hereinafter) to ensure adequate coverage of the area.

After the grass seed has been planted over the areas, by broadcast or drilling, straw mulch, jute or hemp mats or other suitable covering may be necessary to be placed over the area to assist in holding in the moisture, prevent the wind from blowing the seeds and the birds from eating them. Measures shall be taken to protect fresh topsoil and seeding from erosion, especially in drainage swales and ditches, by resisting the movement of surface water and inhibiting the growth of weeds. For reclamation of large areas, such as fallout shelter excavations sites, it is recommended that the site be seeded every March, so that the final snow melt off waters the seed growth. After the first year, supplemental plantings may be needed for areas of wind or water erosion.

For the development of a healthy and stable root system, all seeded areas should be watered daily if necessary, for a period of up to one month or until the grass has reached a height of 3", whichever comes first.

4.7 Erosion Control

For disturbed areas that have a ground slope greater than 4% (1 foot vertical drop in 25 feet horizontal run), any areas immediately above streams or active drainage coursed, and other areas as may be required by the ~~GPRC~~PRC, additional temporary erosion control measures will be required. These measures may include the placement of continuous lines of straw bales staked to the ground to ensure the protection of the down gradient streams and areas from runoff and sediment transport or other measures recommended by the ~~GPRC~~PRC. These measures must remain in place until the root structure of the grass has developed adequately to stabilize the fresh topsoil (usually a minimum of one complete growing season).

Straw bales should be placed above the upper edge of a reclamation area in swales and natural drainages that run through the site and may be recommended in a continuous line along the upper edge of a disturbed area where the size of the drainage areas and the steepness of the ground could cause significant erosion.

The locations of lines of straw bales and other erosion control should be shown on site drawings for construction projects.

4.8 Weed Control

Noxious weeds (principally spotted knapweed, leafy spurge and Canadian thistle) must be eradicated or controlled in the reclamation areas by spraying with herbicide, uprooting the plants by hand or plow, grazing by ~~down with~~ sheep or goats, and/or in some cases mowing.

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Unsightly weeds such as tumbleweed, mustard, broadleaf plants, etc. are most effectively controlled by establishing a healthy growth of natural grasses adapted to the irrigated or dry conditions of the planted area, accompanied by grazing or mowing.

Consult with the Park County Extension Office, 414 East Park, Livingston or the Soil Conservation Service, US Hwy 89, south of Livingston for information and instructions concerning your specific circumstances.

4.9 Grass Seed Mixture and Application Rate Recommendations

Seeding is usually most successful if undertaken during the Spring, generally during April/May when the soil is workable. The first year's germination and growth rate is generally slower than in succeeding years. Fall seeding may be successful if adequate measures are taken, such as extensive mulching, to protect the seeds from wind erosion, birds and runoff.

It is recommended that unirrigated and low maintenance areas be seeded at a rate of 20 lb. per acre with a mixture similar to a Native Prairie Mixture (available at local seed suppliers).

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