

MAINTENANCE INSTRUCTIONS FOR FULL DISPERSION

Your property contains a stormwater management flow control BMP (best management practice) called "*full dispersion*."

Full dispersion is a strategy for minimizing the area disturbed by development (i.e., impervious or non-native pervious surfaces, such as concrete areas, roofs, and lawns) relative to native vegetated areas (e.g., forested surface) together with the application of dispersion techniques that utilize the natural capacity of the native vegetated areas to mitigate the stormwater runoff quantity and quality impacts of the developed surfaces.

This flow control BMP has two primary components that must be maintained:

- (1) the devices that disperse runoff from the developed surfaces, and
- (2) the native vegetated area and flowpath receiving the dispersed runoff.

Dispersion Devices

The **dispersion devices** used on your property include the following as indicated on the flow control BMP site plan (CHECK THE BOX(ES) THAT APPLY):

☐ splash blocks, ☐ rock pads, ☐ gravel filled trenches, ☐ sheet flow.

MAINTENANCE RESTRICTIONS

The size, placement, composition, and downstream flowpaths of these devices as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.

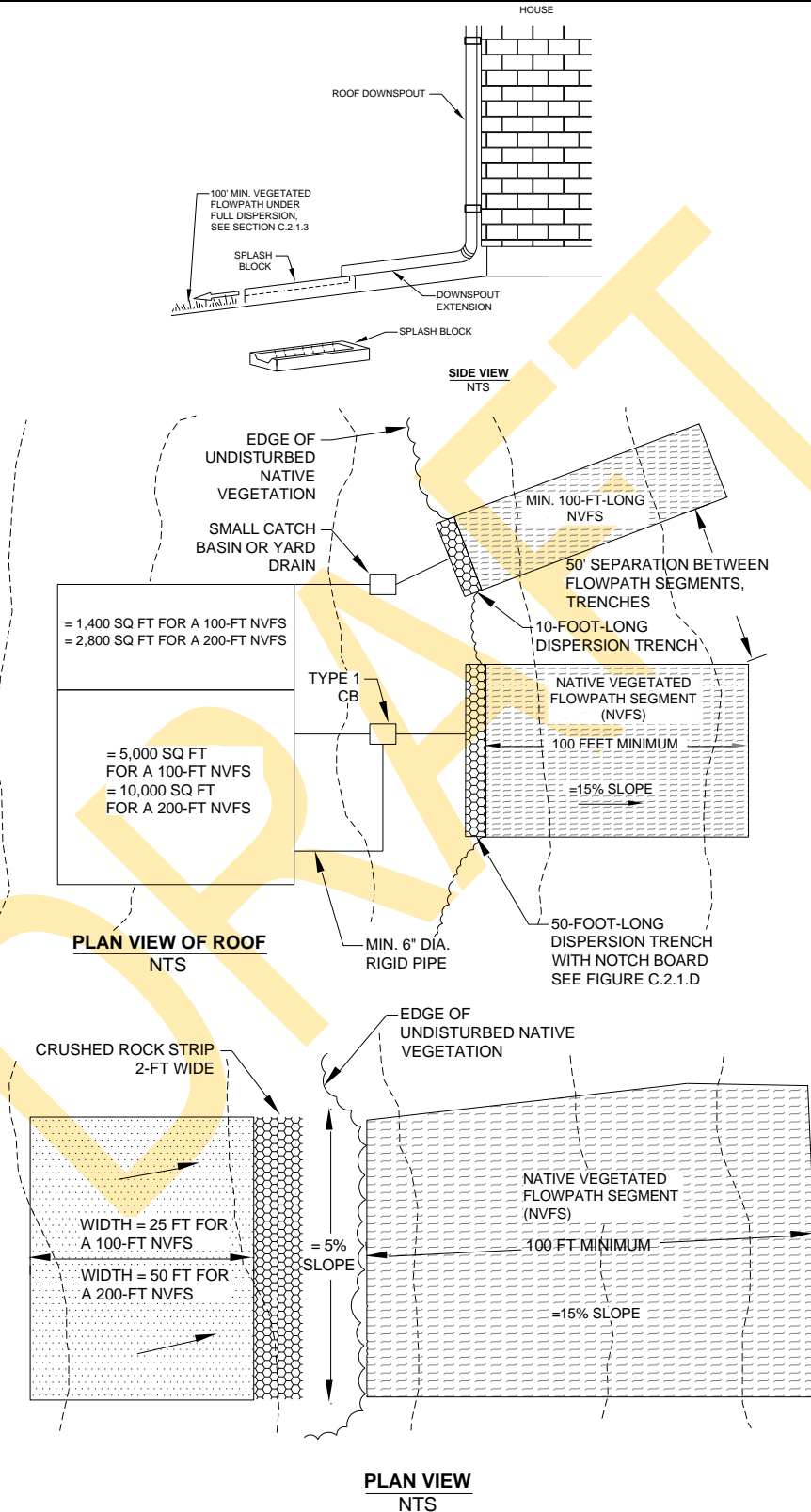
INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

- Dispersion devices must be inspected annually and after major storm events to identify and repair any physical defects.
- When native soil is exposed or erosion channels are present, the sources of the erosion or concentrated flow need to be identified and mitigated.
- Bare spots should be re-vegetated with native vegetation.
- Concentrated flow can be mitigated by leveling the edge of the pervious area and/or regrading or replenishing the rock in the dispersion device, such as in rock pads and gravel-filled trenches.

RECORDING REQUIREMENT

These full dispersion flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

TYPICAL FULL DISPERSION APPLICATIONS



MAINTENANCE INSTRUCTIONS FOR FULL INFILTRATION

Your property contains a stormwater management flow control BMP (best management practice) called "**full infiltration**," which was installed to mitigate the stormwater quantity and quality impacts of some or all of the impervious surfaces on your property.

Full infiltration is a method of soaking runoff from impervious area (such as paved areas and roofs) into the ground. If properly installed and maintained, full infiltration can manage runoff so that a majority of precipitation events are absorbed. Infiltration devices, such as gravel filled trenches, drywells, and ground surface depressions, facilitate this process by putting runoff in direct contact with the soil and holding the runoff long enough to soak most of it into the ground. To be successful, the soil condition around the infiltration device must be reliably able to soak water into the ground for a reasonable number of years.

Infiltration Devices

The **infiltration devices** used on your property include the following as indicated on the flow control BMP site plan (CHECK THE BOX(ES) THAT APPLY):

☐ gravel filled trenches, ☐ drywells, ☐ ground surface depressions.

MAINTENANCE RESTRICTIONS

The size, placement, and composition of these devices as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.

INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

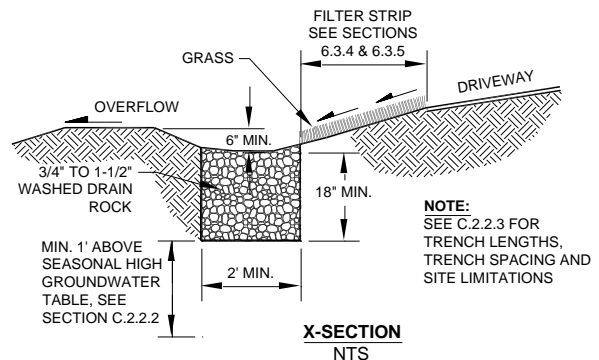
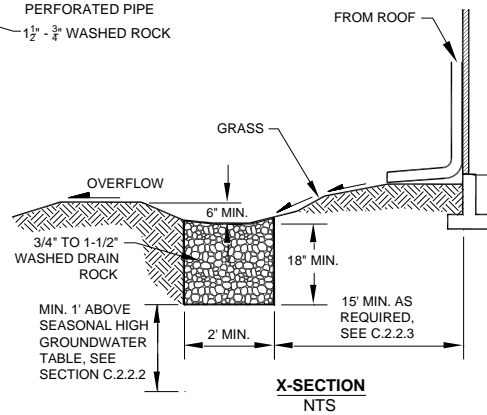
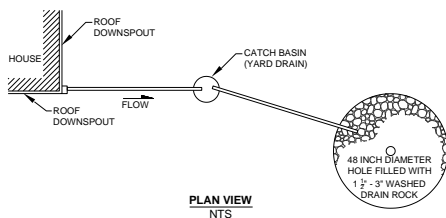
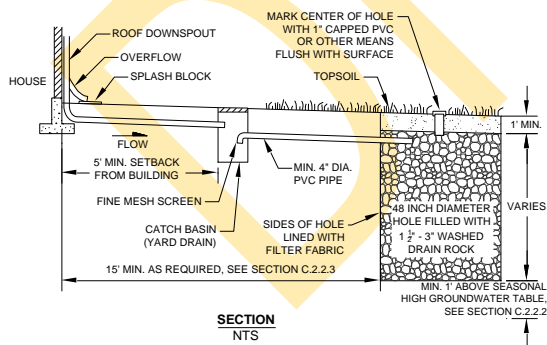
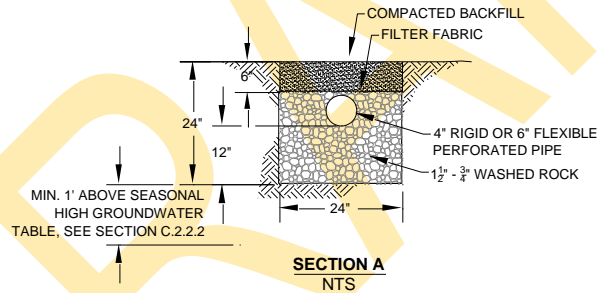
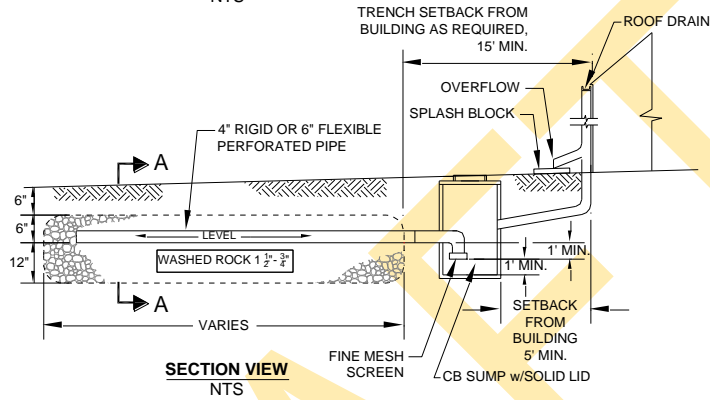
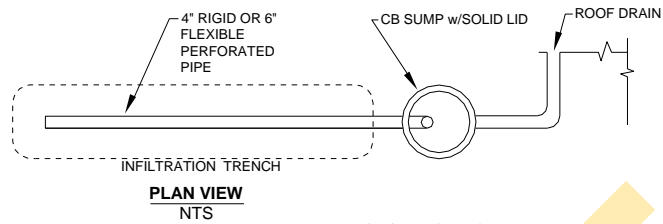
To be successful, the soil condition around the infiltration device must be reliably able to soak water into the ground for a reasonable number of years.

- Infiltration devices must be inspected annually and after major storm events to identify and repair any physical defects.
- Maintenance and operation of the system should focus on ensuring the system's viability by preventing sediment-laden flows from entering the device. Excessive sedimentation will result in a plugged or non-functioning facility.
- If the infiltration device has a catch basin, sediment accumulation must be removed on a yearly basis or more frequently if necessary.
- Prolonged ponding around or atop a device may indicate a plugged facility. If the device becomes plugged, it must be replaced.
- Keeping the areas that drain to infiltration devices well swept and clean will enhance the longevity of these devices.
- For roofs, frequent cleaning of gutters will reduce sediment loads to these devices.

RECORDING REQUIREMENT

These full infiltration flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

TYPICAL FULL INFILTRATION APPLICATIONS



MAINTENANCE INSTRUCTIONS FOR A RAIN GARDEN

Your property contains a stormwater management flow control BMP (best management practice) called a "**rain garden**," which was installed to mitigate the stormwater quantity and quality impacts of some or all of the impervious or non-native pervious surfaces on your property.

Rain gardens, often described as "bioretention," are vegetated closed depressions or ponds that retain and filter stormwater from an area of impervious surface or non-native pervious surface. The soil in the rain garden has been enhanced to encourage and support vigorous plant growth that serves to filter the water and sustain infiltration capacity. Depending on soil conditions, rain gardens may have water in them throughout the wet season and may overflow during major storm events.

MAINTENANCE RESTRICTIONS

The size, placement, and design of the rain garden as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County. Plant materials may be changed to suit tastes, but chemical fertilizers and pesticides must not be used.

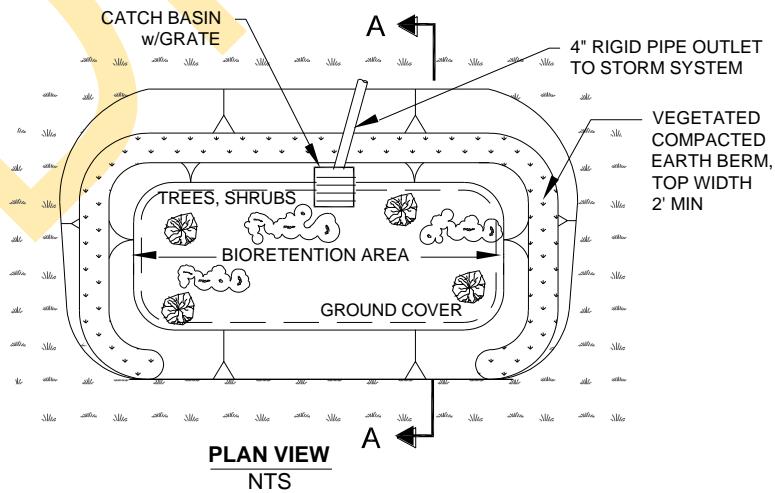
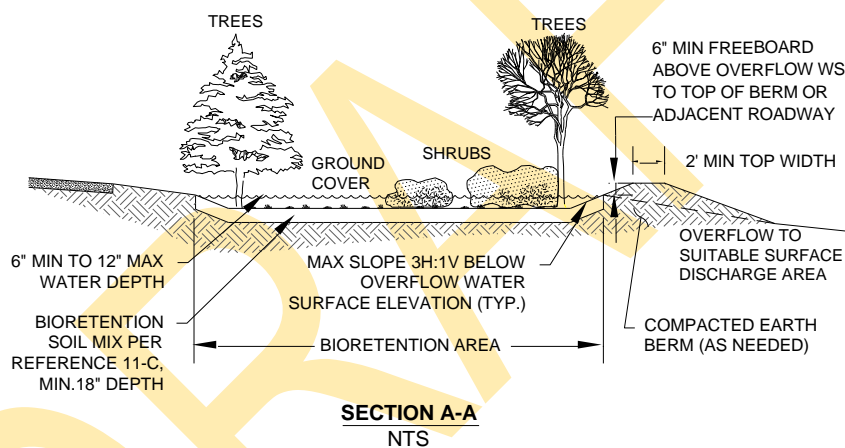
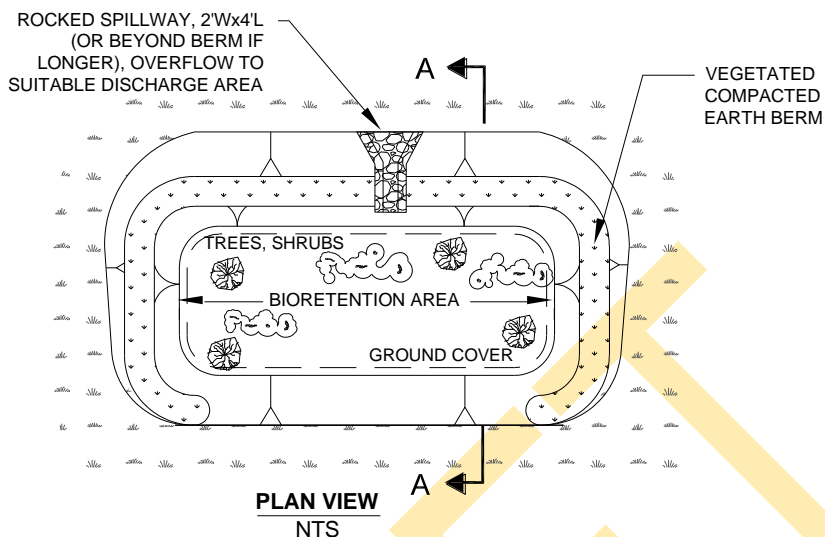
INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

- Rain gardens must be inspected annually for physical defects and sediment accumulation.
- After major storm events, the system should be checked to see that the overflow system is working properly and sedimentation is not occurring at the inlet. If erosion channels or bare spots are evident, they should be stabilized with soil, plant material, mulch, or landscape rock. Sediment deposits should be carefully removed and the sediment source eliminated.
- A supplemental watering program may be needed the first year to ensure the long-term survival of the rain garden's vegetation.
- Chemical fertilizers and pesticides must not be used.
- Mulch may be added and additional compost should be worked into the soil over time. ~~At minimum, compost and compost~~ Mulch must comply with ~~feedstock disallowances contained in~~ Reference 11-C. Compost must comply with Reference 11-C Type 1 Compost. -A, #3.
- Plant materials may be changed to suit tastes.
- Vegetation should be maintained as follows:
 - 1) replace all dead vegetation as soon as possible;
 - 2) remove fallen leaves and debris as needed;
 - 3) remove all noxious vegetation when discovered;
 - 4) manually weed without herbicides or pesticides;
 - 5) to protect infiltration performance, do not compact soils in the bioretention cell with heavy maintenance equipment and/or excessive foot traffic;
 - 6) during drought conditions, use mulch to prevent excess solar damage and water loss.

RECORDING REQUIREMENT

These rain garden flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

TYPICAL RAIN GARDEN (SPILLWAY OR CATCHBASIN OUTLET)



MAINTENANCE INSTRUCTIONS FOR A BIORETENTION CELL

Your property contains a stormwater management flow control BMP (best management practice) called "**bioretention**," which was installed to mitigate the stormwater quantity and quality impacts of some or all of the impervious or non-native pervious surfaces on your property.

Bioretention cells, like rain gardens, are vegetated closed depressions or ponds that retain and filter stormwater from an area of impervious surface or non-native pervious surface. Bioretention cells rely on effective infiltration performance more so than rain gardens. The soil in the bioretention cell has been enhanced to encourage and support vigorous plant growth that serves to filter the water and sustain a minimum infiltration capacity. Depending on soil conditions, bioretention cells may have water in them throughout the wet season and may overflow during major storm events. However, standing water can also be an indicator that periodic maintenance is required to sustain infiltrative performance.

MAINTENANCE RESTRICTIONS

The size, placement, and design of the rain garden as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County. Plant materials may be changed to suit tastes, but chemical fertilizers and pesticides must not be used.

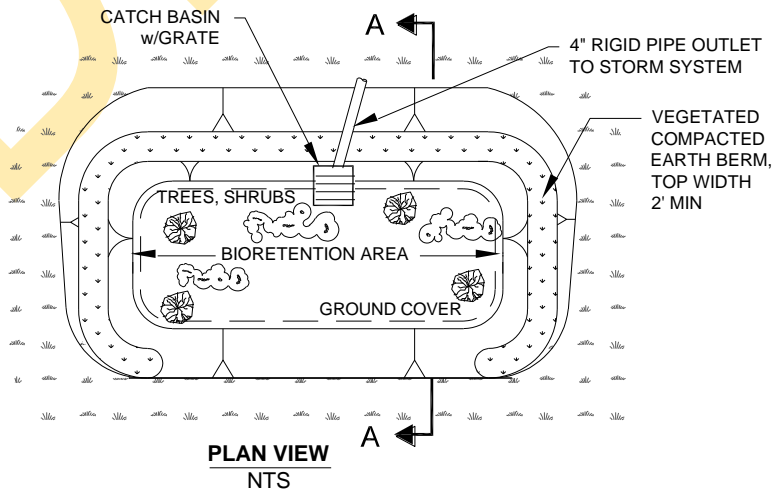
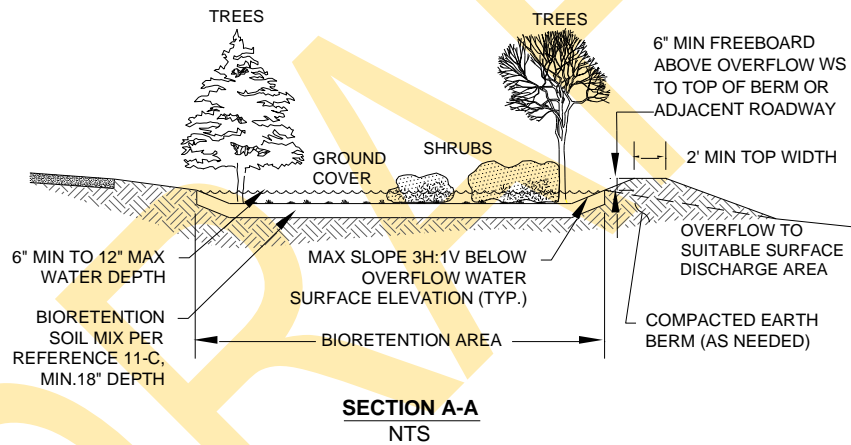
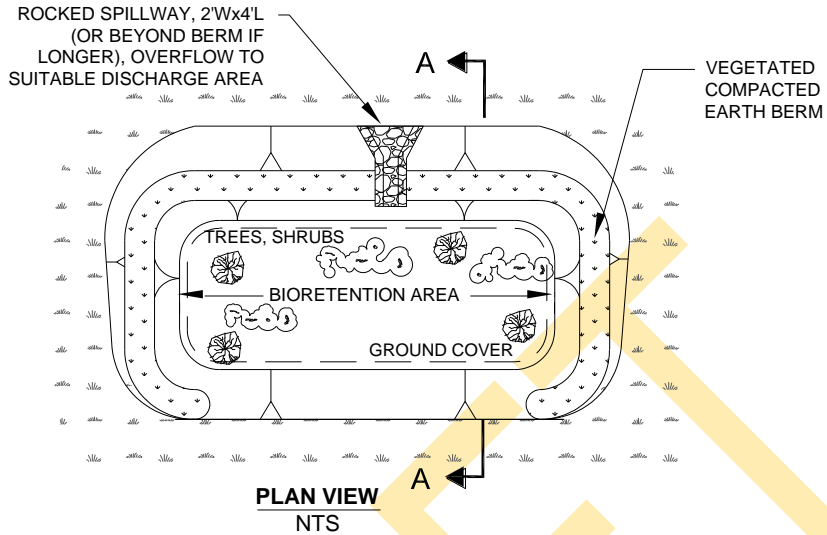
INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

- Bioretention cells must be inspected annually for physical defects and sediment accumulation.
- After major storm events, the system should be checked to see that the overflow system is working properly, and sedimentation is not occurring at the inlet. If erosion channels or bare spots are evident, they should be stabilized with soil, plant material, mulch, or landscape rock. Sediment deposits should be carefully removed, and the sediment source eliminated.
- A supplemental watering program may be needed the first year to ensure the long-term survival of the bioretention cells' vegetation.
- Chemical fertilizers and pesticides must not be used.
- Mulch may be added, and additional compost should be worked into the soil over time. Mulch must comply with Reference 11-C.3 specification for "**Bioretention Mulch**". Compost must comply with Reference 11-C Type 1.2.B "**Bioretention Compost**".
- Plant materials may be changed to suit tastes.
- Vegetation should be maintained as follows:
 - 1) replace all dead vegetation as soon as possible;
 - 2) remove fallen leaves and debris as needed;
 - 3) remove all noxious vegetation when discovered;
 - 4) manually weed without herbicides or pesticides;
 - 5) to protect infiltration performance, do not compact soils in the bioretention cell with heavy maintenance equipment and/or excessive foot traffic;
 - 6) during drought conditions, use mulch to prevent excess solar damage and water loss.

RECORDING REQUIREMENT

These bioretention flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

TYPICAL BIORETENTION CELL (SPILLWAY OR CATCHBASIN OUTLET)



MAINTENANCE INSTRUCTIONS FOR VEGETATED PERMEABLE PAVEMENT (GRASSED MODULAR GRID PAVEMENT)

Your property contains a stormwater management flow control BMP (best management practice) called "***grassed modular grid pavement***," which was installed to minimize the stormwater quantity and quality impacts of some or all of the paved surfaces on your property.

Grassed modular grid pavement has the runoff characteristics of a lawn while providing the weight-bearing capacity of concrete pavement. The grassed surface not only minimizes runoff quantity, it helps to filter pollutants generating by vehicular use of the surface.

MAINTENANCE RESTRICTIONS

The composition and area of grassed modular grid pavement as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.

INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

- Grassed modular grid pavement must be inspected after one major storm each year to make sure it is working properly. More frequent inspection is recommended.
- Prolonged ponding or standing water on the pavement surface is a sign that the system is defective and may need to be replaced. If this occurs, or if any modification, surface restoration or stabilization is planned (except for mowing and periodic maintenance), contact the pavement installer or the King County Water and Land Resources Division for further instructions.
- The grassed surface of the pavement must be regularly mowed and maintained in a good condition. Bare spots must be replanted in the spring or fall.

RECORDING REQUIREMENT

These vegetated permeable pavement flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Permitting and Environmental Services (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

MAINTENANCE INSTRUCTIONS FOR PERMEABLE PAVEMENT (NON-VEGETATED)

Your property contains a stormwater management flow control BMP (best management practice) called "***permeable pavement***," which was installed to minimize the stormwater quantity and quality impacts of some or all of the paved surfaces on your property.

Permeable pavements reduce the amount of rainfall that becomes runoff by allowing water to seep through the pavement into a free-draining gravel or sand bed, where it can be infiltrated into the ground.

Permeable Pavements

The type(s) of **permeable pavement** used on your property is (CHECK THE BOX(ES) THAT APPLY):

- ☐ porous concrete
- ☐ porous asphaltic concrete
- ☐ permeable pavers
- ☐ modular grid pavement.

MAINTENANCE RESTRICTIONS

The area covered by permeable pavement as depicted by the flow control BMP site plan and design details must be maintained as permeable pavement and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.

INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

- Permeable pavements must be inspected after one major storm each year to make sure it is working properly. More frequent inspection is recommended.
- Prolonged ponding or standing water on the pavement surface is a sign that the system is defective and may need to be replaced. If this occurs, contact the pavement installer or the King County Water and Land Resources Division for further instructions.
- A typical permeable pavement system has a life expectancy of approximately 25-years. To help extend the useful life of the system, the surface of the permeable pavement should be kept clean, stable and free of leaves, debris, and sediment through regular sweeping or vacuum sweeping. Aggregate fill in modular grid pavement may need periodic surface replenishment.
- The owner is responsible for the repair of all ruts, deformation, and/or broken paving units.

RECORDING REQUIREMENT

These permeable pavement flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

MAINTENANCE INSTRUCTIONS FOR BASIC DISPERSION

Your property contains a stormwater management flow control BMP (best management practice) called "**basic dispersion**," which was installed to mitigate the stormwater quantity and quality impacts of some or all of the impervious surfaces or non-native pervious surfaces on your property.

Basic dispersion is a strategy for utilizing any available capacity of onsite vegetated areas to retain, absorb, and filter the runoff from developed surfaces. This flow control BMP has two primary components that must be maintained:

- (1) the devices that disperse runoff from the developed surfaces and
- (2) the vegetated area over which runoff is dispersed.

Dispersion Devices

The **dispersion devices** used on your property include the following as indicated on the flow control BMP site plan (CHECK THE BOX(ES) THAT APPLY):

- ☐ splash blocks, ☐ rock pads, ☐ gravel filled trenches, ☐ sheet flow.

MAINTENANCE RESTRICTIONS

The size, placement, composition, and downstream flow-paths of these devices as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.

INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

This flow control BMP has two primary components that must be maintained:

- (1) the devices that disperse runoff from the developed surfaces and
- (2) the vegetated flowpath area over which runoff is dispersed.

Maintenance of Dispersion Devices

- Dispersion devices must be inspected annually and after major storm events to identify and repair any physical defects.
- When native soil is exposed or erosion channels are present, the sources of the erosion or concentrated flow need to be identified and mitigated.
- Concentrated flow can be mitigated by leveling the edge of the pervious area and/or realigning or replenishing the rocks in the dispersion device, such as in rock pads and gravel filled trenches.

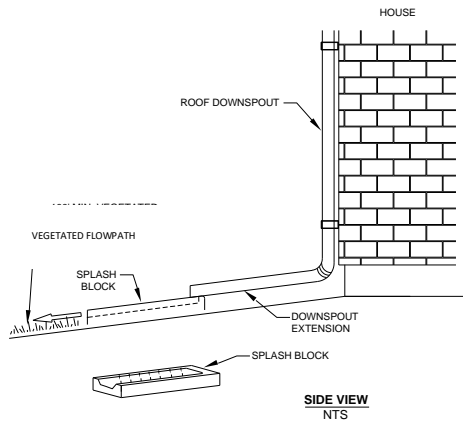
Maintenance of Vegetated Flowpaths

- The vegetated area over which runoff is dispersed must be maintained in good condition free of bare spots and obstructions that would concentrate flows.

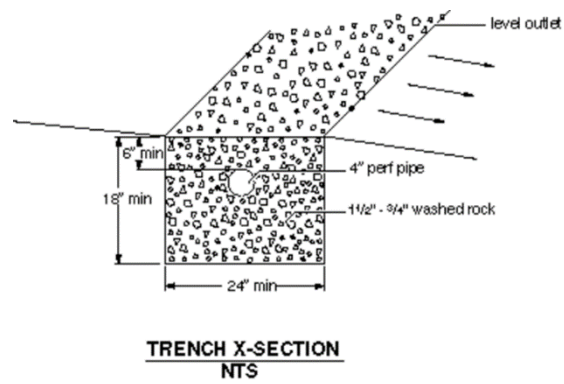
RECORDING REQUIREMENT

These basic dispersion flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

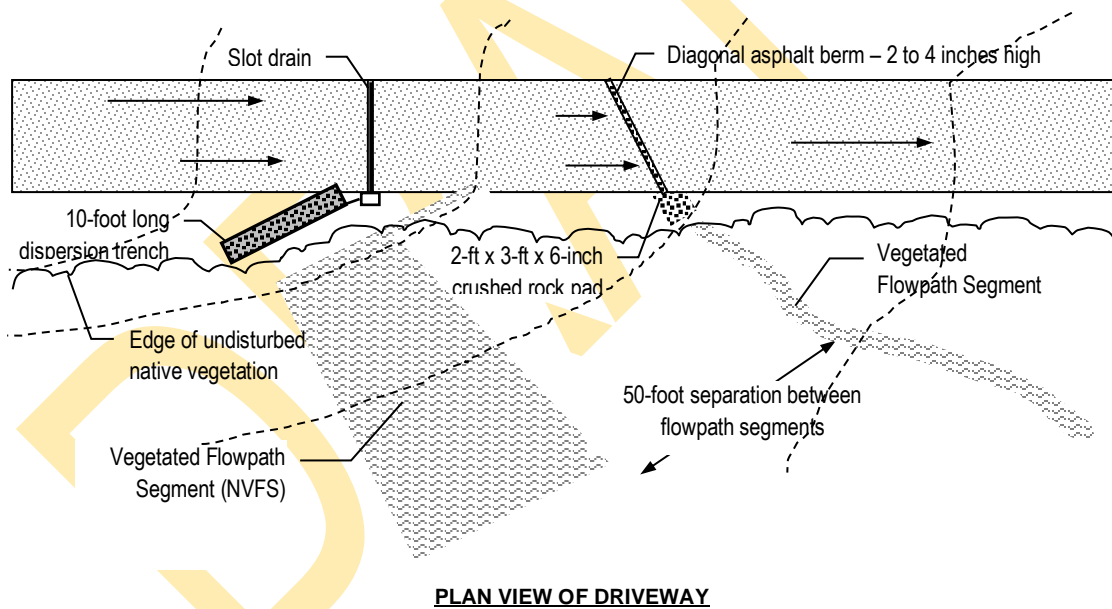
TYPICAL SPLASH BLOCK



TYPICAL 10-FOOT DISPERSION TRENCH CROSS-SECTION



TYPICAL DRIVEWAY APPLICATION OF DISPERSION TRENCH AND ROCK PAD



MAINTENANCE INSTRUCTIONS FOR LIMITED INFILTRATION

Your property contains a stormwater management flow control BMP (best management practice) called "**limited infiltration**," which was installed to mitigate the stormwater quantity and quality impacts of some or all of the impervious surfaces on your property.

Limited infiltration is a method of soaking runoff from impervious area (such as paved areas and roofs) into the ground. Infiltration devices, such as gravel filled trenches, drywells, and ground surface depressions, facilitate this process by putting runoff in direct contact with the soil and holding the runoff long enough to soak most of it into the ground. To be successful, the soil condition around the infiltration device must be able to soak water into the ground for a reasonable number of years.

Infiltration Devices

The **infiltration devices** used on your property include the following as indicated on the flow control BMP site plan (CHECK THE BOX(ES) THAT APPLY):

- ☐ gravel filled trenches, ☐ drywells.

MAINTENANCE RESTRICTIONS

The size, placement, and composition of these devices as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.

INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

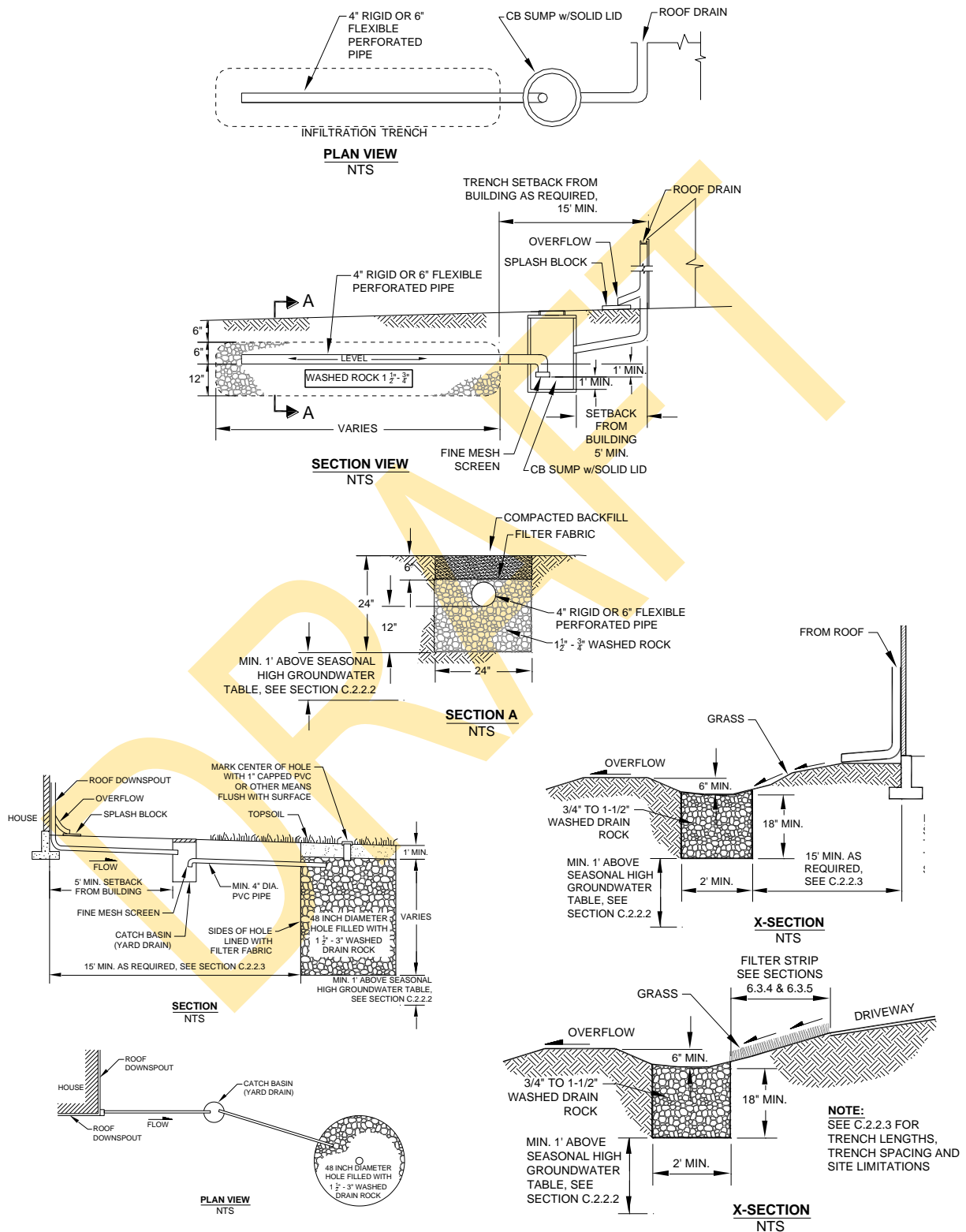
To be successful, the soil condition around the infiltration device must be able to soak water into the ground for a reasonable number of years.

- Infiltration devices must be inspected annually and after major storm events to identify and repair any physical defects.
- Maintenance and operation of the system should focus on ensuring the system's viability by preventing sediment-laden flows from entering the device. Excessive sedimentation will result in a plugged or non-functioning facility.
- If the infiltration device has a catch basin, sediment accumulation must be removed on a yearly basis or more frequently if necessary.
- Prolonged ponding around or atop a device may indicate a plugged facility. If the device becomes plugged, it must be replaced.
- Keeping the areas that drain to infiltration devices well swept and clean will enhance the longevity of these devices.
- For roofs, frequent cleaning of gutters will reduce sediment loads to these devices.

RECORDING REQUIREMENT

These limited infiltration flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

TYPICAL LIMITED INFILTRATION APPLICATIONS



MAINTENANCE INSTRUCTIONS FOR RAINWATER HARVESTING

Your property contains a stormwater management flow control BMP (best management practice) called "*rainwater harvesting*," which was installed to minimize the stormwater runoff impacts of impervious surface on your property.

Rainwater harvesting is a means for the collection and storage of roof runoff for domestic or irrigation use. **Rainwater harvesting systems** include a collection area, a filtering system, a storage device, and an outflow device.

MAINTENANCE RESTRICTIONS

The size, components, and configuration of the rainwater system as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.

INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

Rainwater harvesting systems include a *collection area*, a *filtering system*, a *storage device*, and an *outflow device*:

- The *collection area* (e.g., roof) should be routinely inspected for debris and other material that could impede the entrance and/or exit of surface flows.
- The *filtering system* should be periodically inspected for effectiveness and replaced or replenished as recommended by the manufacturer.
- The *storage device* must be drained completely during the dry season (May 1st - September 30th) in order to provide the needed capacity for an entire wet season.
- A maintenance log should be kept on site with the aforementioned information and dates of maintenance performance. King County inspection staff may request to view the maintenance log at any time.

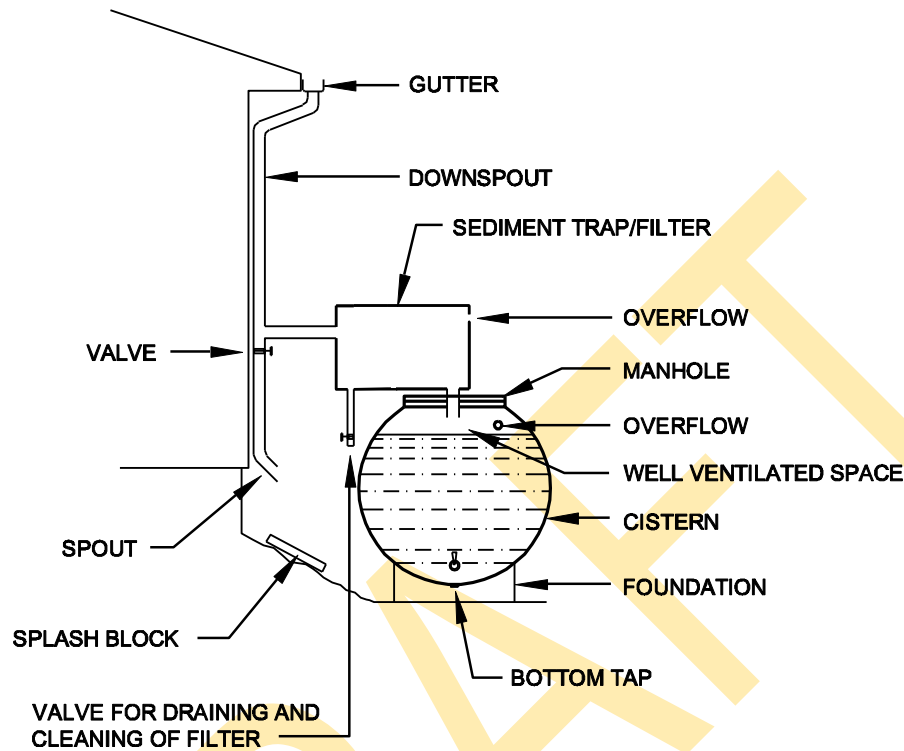
RECORDING REQUIREMENT

These rainwater harvesting flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

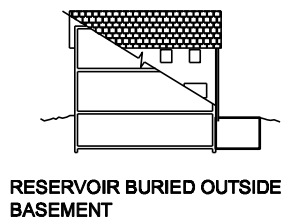
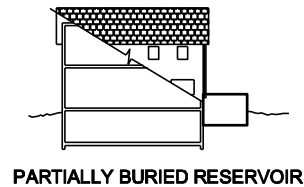
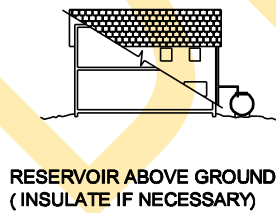
RAINWATER HARVESTING SYSTEM DESIGN REQUIREMENTS:

- To assure the system functions as designed and provides the required stormwater management, system-specific maintenance and operation instructions must be submitted with the small project drainage plan and approved by DLS-Permitting. Such instructions should be prepared by the system's manufacturer or installer.
- A minimum 5-foot setback shall be maintained between any part of the rainwater harvesting system and any property line.

TYPICAL ABOVE GROUND RESERVOIR CONFIGURATION (STENSROD, 1978)



VARIOUS POSSIBLE RESERVOIR CONFIGURATIONS (TYPICAL) (STENSROD, 1978)



MAINTENANCE INSTRUCTIONS FOR VEGETATED ROOFS

Your property contains a stormwater management flow control BMP (best management practice) called a "***vegetated roof***," which was installed to minimize the stormwater runoff impacts of the impervious surfaces on your property.

Vegetated roofs (also called green roofs) consist of a pervious growing medium, plants, and a moisture barrier. The benefits of this device are a reduction in runoff peaks and volumes due to the storage capabilities of the soil and increased rate of evapotranspiration.

MAINTENANCE RESTRICTIONS

- The composition and area of vegetated roof as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.
- Vegetated roofs must not be subject to any use that would significantly compact the soil.

INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

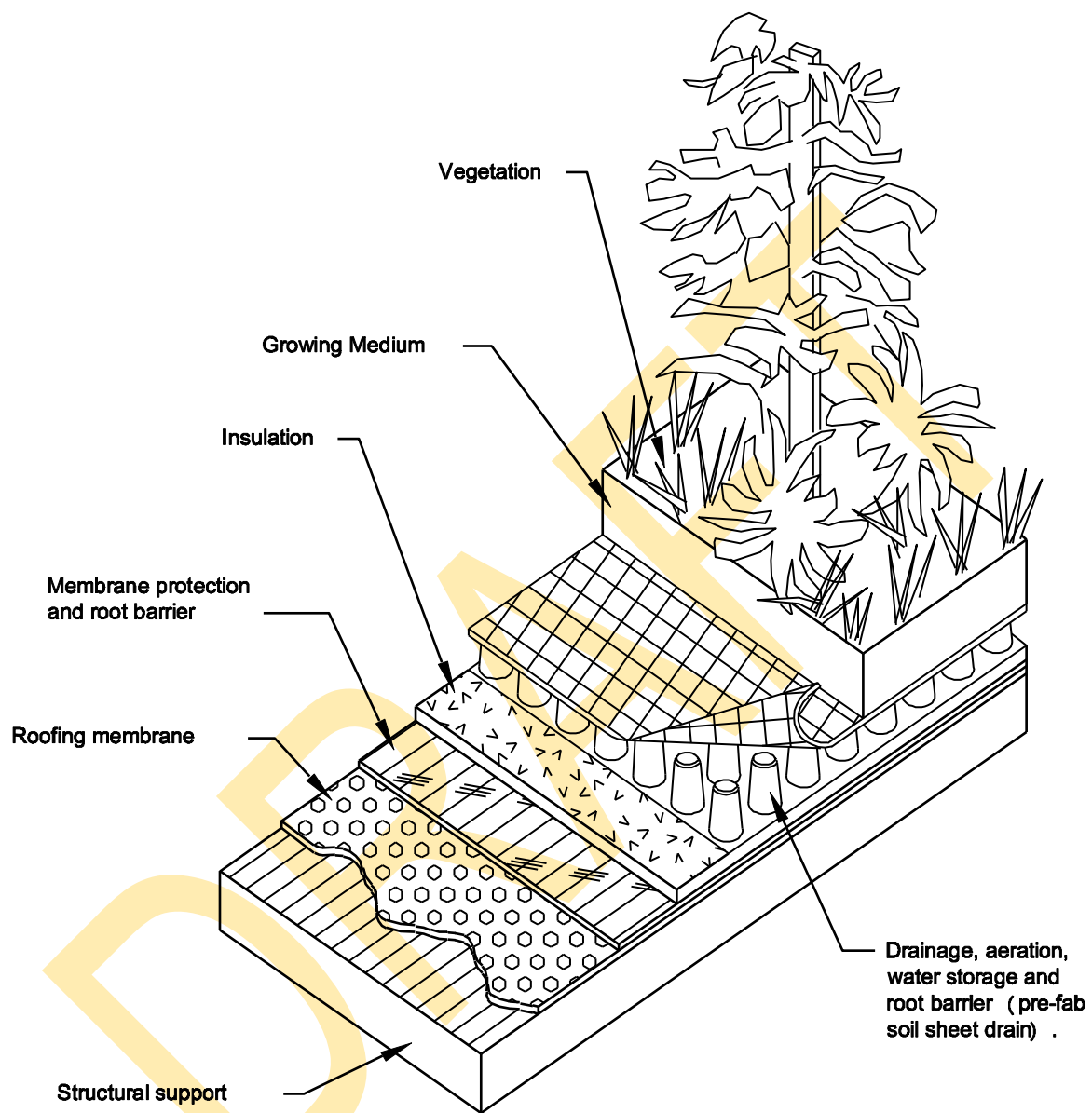
Vegetated roofs (also called green roofs) consist of a *pervious growing medium, plants, and a moisture barrier*:

- Vegetated roofs must be inspected annually for physical defects and to make sure the vegetation is in good condition.
- If erosion channels or bare spots are evident, they should be stabilized with additional soil similar to the original material.
- A supplemental watering program may be needed the first year to ensure the long-term survival of the roof's vegetation.
- Vegetation should be maintained as follows:
 - (1) vegetated roofs must not be subject to any use that would significantly compact the soil;
 - (2) replace all dead vegetation as soon as possible;
 - (3) remove fallen leaves and debris;
 - (4) remove all noxious vegetation when discovered;
 - (5) manually weed without herbicides or pesticides.

RECORDING REQUIREMENT

These vegetated roof flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

TYPICAL VEGETATED ROOF CROSS-SECTION



Note:
This example shows a two-part prefabricated soil sheet drain and protection board.

MAINTENANCE INSTRUCTIONS FOR REDUCED IMPERVIOUS SURFACE

BMP: RESTRICTED FOOTPRINT

Your property contains a stormwater management flow control BMP (best management practice) known as "***restricted footprint***," the practice of *restricting the amount of impervious surface that may be added* to a property so as to minimize the stormwater runoff impacts caused by impervious surface.

MAINTENANCE RESTRICTIONS

The **total impervious surface** on your property **may not exceed** _____ square feet without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.

RECORDING REQUIREMENT

These reduced impervious surface flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

MAINTENANCE INSTRUCTIONS FOR REDUCED IMPERVIOUS SURFACE

BMP: WHEEL STRIP DRIVEWAY

Your property contains a stormwater management flow control BMP (best management practice) called a "*wheel strip driveway*," which was installed to minimize or mitigate for the stormwater runoff impacts of some or all of the impervious surfaces on your property.

MAINTENANCE RESTRICTIONS

The placement and composition of the wheel strip driveway as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.

RECORDING REQUIREMENT

These reduced impervious surface flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

WHEEL STRIP DRIVEWAY DESIGN REQUIREMENTS for the typical 10-foot driveway width:

- The two **pavement strips** must be no more than 2.5-feet wide.
- At least 4 feet of the 10-foot driveway width must be **amended soil planted with grass**.
- The **amended soil** must consist of at least 4 inches of well-rotted compost tilled into the upper 8 inches of the soil between the impervious strips.

MAINTENANCE INSTRUCTIONS FOR REDUCED IMPERVIOUS SURFACE

BMP: MINIMUM DISTURBANCE FOUNDATION

Your property contains a stormwater management flow control BMP (best management practice) known as a "*minimum disturbance foundation*," which was installed to minimize or mitigate for the stormwater runoff impacts of some or all of the impervious surfaces on your property.

This means that all or a portion of the finished living space in your house is elevated over a pervious surface through the use of piers or piles. The pervious surface is intended to provide additional capacity to absorb and store the stormwater runoff from your roof and surrounding areas.

MAINTENANCE RESTRICTIONS

- The design of this system as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.
- In addition, the pervious surface beneath the elevated portion of your house must not be used in manner that compacts the soil or provides an opportunity for pollutants to enter the soil or storm runoff.

RECORDING REQUIREMENT

These reduced impervious surface flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

MINIMUM DISTURBANCE FOUNDATION DESIGN REQUIREMENTS:

- The **pervious surface beneath** the elevated portion of the structure must be either undisturbed native soil or amended soil. Any amended soil must consist of at least 4 inches of well-rotted compost tilled into the upper 8 inches of the soil.
- **Runoff** from the structure must be discharged via downspouts or sheet flow onto a vegetated surface or into a 4 to 6-inch gravel bed within close proximity of the elevated structure. Runoff discharging from downspouts onto a vegetated surface must be via splash blocks.

MAINTENANCE INSTRUCTIONS FOR REDUCED IMPERVIOUS SURFACE

BMP: OPEN GRID DECKING OVER PERVIOUS SURFACE

Your property contains a stormwater management flow control BMP (best management practice) called "*open grid decking over pervious surface*," which was installed to minimize or mitigate for the stormwater runoff impacts of some or all of the impervious surfaces on your property.

The decking has evenly spaced openings that allow rain water to reach the uncompacted soil below, where it has an opportunity to soak into the ground.

MAINTENANCE RESTRICTIONS

- The area and openings of the decking as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.
- In addition, the pervious surface beneath the decking must not be used in manner that compacts the soil.

INSPECTION FREQUENCY AND MAINTENANCE GUIDELINES

- Check monthly or as needed (e.g., weekly during the autumn season) to assure openings in the decking are not blocked and are draining freely. Sweep and/or vacuum as needed.
- Avoid the use of chemicals or other pollutants on the deck where they have an opportunity to pass through the decking and soak into the ground.

RECORDING REQUIREMENT

These reduced impervious surface flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

OPEN GRID DECKING DESIGN REQUIREMENTS:

- The pervious surface beneath the decking must be either undisturbed native soil or amended soil.
- Any amended soil must consist of at least 4 inches of well-rotted compost tilled into the upper 8 inches of the soil.

MAINTENANCE INSTRUCTIONS FOR NATIVE GROWTH RETENTION CREDIT

Your property contains a stormwater management flow control BMP (best management practice) known as "**native growth retention**," the practice of preserving a portion of a property in a native vegetated condition (e.g., forest) so as to minimize increases in stormwater runoff from clearing and to offset the stormwater runoff impacts caused by impervious surfaces on your property.

This native vegetated area on your property was *set aside by covenant* as "native growth retention area."

MAINTENANCE RESTRICTIONS

The "**native growth retention area**" is delineated on the flow control BMP site plan attached to the covenant. The trees, vegetation, ground cover, and soil conditions in this area may not be disturbed, except as allowed by the following provisions:

1. Trees may be harvested in accordance with a King County-approved forest management plan.
2. Individual trees that have a structural defect due to disease or other defects, and which threaten to damage a structure, road, parking area, utility, or place of employment or public assembly, or block emergency access, may be topped, pruned, or removed as needed to eliminate the threat.
3. Dead or fallen trees, tree limbs within ten feet of the ground, and branches overhanging a residence may be removed to reduce the danger of wildfire.
4. Noxious weeds (i.e., plant species listed on the State noxious weed list in Chapter 16-750 WAC) and invasive vegetation (i.e., plant species listed as obnoxious weeds on the noxious weed list adopted by the King County Department of Natural Resources and Parks) may be removed.
5. Passive recreation uses and related facilities, including pedestrian, equestrian community and bicycle trails, nature viewing areas, fishing and camping areas, and other similar uses that do not require permanent structures, are allowed if clearing and soil compaction associated with these uses and facilities does not exceed eight percent of the native growth retention area.

RECORDING REQUIREMENT

These native growth retention credit flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

MAINTENANCE INSTRUCTIONS FOR A PERFORATED PIPE CONNECTION

Your property contains a stormwater management flow control BMP (best management practice) called a "***perforated pipe connection***," which was installed to reduce the stormwater runoff impacts of some or all of the impervious surface on your property.

A perforated pipe connection is a length of drainage conveyance pipe with holes in the bottom, designed to "leak" runoff, conveyed by the pipe, into a gravel filled trench where it can be soaked into the surrounding soil. The connection is intended to provide opportunity for infiltration of any runoff that is being conveyed from an impervious surface (usually a roof) to a local drainage system such as a ditch or roadway pipe system.

MAINTENANCE RESTRICTIONS

- The size and composition of the perforated pipe connection as depicted by the flow control BMP site plan and design details must be maintained and may not be changed without written approval either from the King County Water and Land Resources Division or through a future development permit from King County.
- The soil overtop of the perforated portion of the system must not be compacted or covered with impervious materials.

RECORDING REQUIREMENT

These **perforated pipe connection** flow control BMP maintenance and operation instructions must be recorded as an attachment to the required **declaration of covenant and grant of easement** per Requirement 3 of Section C.1.3.4 of the King County *Surface Water Design Manual*. The intent of these instructions is to explain to future property owners, the purpose of the BMP and how it must be maintained and operated. These instructions are intended to be a minimum; the King County Department of Local Services, Permitting Division (DLS-Permitting) may require additional instructions based on site-specific conditions. See King County's Surface Water Design Manual website for additional information and updates.

TYPICAL PERFORATED PIPE CONNECTION FOR A SINGLE FAMILY RESIDENCE

(TYPICAL)