# City of Gresham

## Compliance with Metro Title 13 Habitat-Friendly Development Practices

## Table 3.07-13c.

*Part (a): Design and Construction Practices to Minimize Hydrologic Impacts*

1. Amend disturbed soils to original or higher level of porosity to regain infiltration and stormwater storage capacity.
   **Barrier? No.** *The City of Gresham does not have code that prohibits or limits this practice. The city requires this practice in planting strips between street curbs and sidewalks.*

2. Use pervious paving materials for residential driveways, parking lots, walkways, and within centers of cul-de-sacs.
   **Barrier? No.** *The City of Gresham does not have code in the existing city requiring pervious paving materials, but it is allowed as an alternative to meet stormwater management requirements. This is a design option in the Springwater and Pleasant Valley Plan Districts where the builder is required to select from a suite of on-site LID stormwater practices in order to manage stormwater on-site.*

3. Incorporate stormwater management in road right-of-ways.
   **Barrier? No.** *The City of Gresham developed and adopted Green Street Standards in July 2007. All new developments in the Pleasant Valley and Springwater Plan Districts are required to use Green Street designs. Development in the existing city can use Green Street designs to meet stormwater management requirements.*

4. Landscape with rain gardens to provide on-lot detention, filtering of rainwater, and groundwater recharge.
   **Barrier? No.** *The City of Gresham developed and adopted low-impact development standards (including rain gardens, stormwater planters, porous pavement, and tree planting credits) in July 2007 with the "Green Development Practices for Stormwater Management Manual". All new developments in the Pleasant Valley and Springwater Plan Districts are required to use Green Development Practices to manage stormwater on-site. Development in the existing city can use Green Development Practices to meet stormwater management requirements.*

5. Use green roofs for runoff reduction, energy savings, improved air quality, and enhanced aesthetics.
   **Barrier? No.** *The construction of green roofs is encouraged in Gresham. Green roofs are considered as pervious surfaces for stormwater management purposes, so no further detention or treatment of stormwater is required.*

6. Disconnect downspouts from roofs and direct the flow to vegetated infiltration/filtration areas such as rain gardens.
   **Barrier? No.** *The disconnection of downspouts into vegetated infiltration/filtration areas such as rain gardens is required with all new development in the Pleasant Valley and Springwater Plan Districts, and is available as an option to meet stormwater management requirements in the existing city. Existing properties that disconnect downspouts into rain gardens are eligible to receive the full stormwater rate discount available as part of Gresham's Stormwater Rate Reduction Program.*

7. Retain rooftop runoff in a rain barrel for later on-lot use in lawn and garden watering.
   **Barrier? No.** *The City of Gresham does not have code that prohibits or limits this practice.*

8. Use multi-functional open drainage systems in lieu of more conventional curb-and-gutter systems.
   **Barrier? No.** *The City of Gresham offers a green street design alternative that achieves the same objectives as an open drainage system. The City of Gresham's Public Works Standards for street construction, as well as Green Street Standards both include curb-and-gutter systems. The Green Street Standards incorporate rain garden bump-outs and planters between the curbs and sidewalk. Experience with the Green Street design shows that this is more effective at capturing and retaining pollutants than curbless ditch designs. In residential zoning the number of driveways makes the practice of curbless design with driveway culverts undesirable as the length of culvert piping can exceed the length of a single pipe placed in the center of the street. In industrial-zoned areas, the number of driveways is minimal and more conducive to open drainage systems. The Springwater Plan District, which includes industrial zoning, will also include open channel systems as part of the infrastructure design.*

9. Use bioretention cells as rain gardens in landscaped parking lot islands to reduce runoff volume and filter pollutants.
   **Barrier? No.** *The City of Gresham developed and adopted low-impact development standards (including rain*

*gardens, stormwater planters, porous pavement, and tree planting credits) in July 2007 with the "Green Development Practices for Stormwater Management Manual". All new parking lots in the Pleasant Valley and Springwater Plan Districts are required to use Green Development Practices to manage stormwater on-site. Parking lot developments in the existing city can use Green Development Practices to meet stormwater management requirements.*

10. Apply a treatment train approach to provide multiple opportunities for storm water treatment and reduce the possibility of system failure.
    **Barrier? No.** *The City of Gresham does not have code that prohibits or limits this practice. A treatment train methodology is required in the Pleasant Valley and Springwater Plan Districts, where low-impact development practices are required along with regional stormwater management facilities, such as ponds, swales, and constructed treatment wetlands. A treatment train methodology is required where ponds or Stormfilter cartridge systems are used, as a pretreatment sedimentation manhole is required.*

11. Reduce sidewalk width and grade them such that they drain to the front yard of a residential lot or retention area.
    **Barrier? No.** *The City of Gresham has reduced the standard sidewalk width to 5 feet, with a design allowance down to 4 feet. Green Street Standards allow for the drainage from sidewalk areas to flow into rain gardens or planters for stormwater management. The City has allowed pervious sidewalk materials and grading to the private lawn areas in some cases.*

12. Reduce impervious impacts of residential driveways by narrowing widths and moving access to the rear of the site.
    **Barrier? No (Clarification of the standard is needed- reduce to what?).** *The City of Gresham does not have code that prohibits this practice.*

13. Use shared driveways.
    **Barrier? No.** *The City of Gresham does not have code that prohibits this practice.*

14. Reduce width of residential streets, depending on traffic and parking needs.
    **Barrier? No (Clarification of the standard is needed- reduce to what?).** *The City of Gresham has skinny street standards and code allowing for alternative widths. The skinny street standard is the minimum width that is necessary for fire truck access and intersection turning. In addition, the City of Gresham allows sidewalks on just one side of the street instead of both in some instances (i.e., hillsides).*

15. Reduce street length, primarily in residential areas, by encouraging clustering and using curvilinear designs.
    **Barrier? No (Clarification of the standard is needed- reduce to what?)**. *Clustering is allowed in the City of Gresham via a Planned Development in the existing City and through density transfer credits in the Pleasant Valley and Springwater Plan Districts (in order to preserve hillsides or ESRA areas). However, the City of Gresham currently requires planning for through streets whenever a developer initiates a new area of development to ensure a design that encourages more pedestrian movement and less vehicle miles traveled.*

16. Reduce cul-de-sac radii and use pervious vegetated islands in center to minimize impervious effects, and allow them to be utilized for truck maneuvering/loading to reduce need for wide loading areas on site.
    **Barrier? No**. *The City of Gresham already allows the minimum cul-de-sac radii size necessary for fire truck access and turnaround. Developers have no incentive to install larger cul-de-sacs as it simply increases the costs. The City would not allow vegetated islands in the middle of the cul-de-sac unless used as part of the stormwater management system, as that would increase the public maintenance need and likely require a larger cul-de-sac radius. "Driveable" vegetated medians are not practical and would be quickly decimated by through traffic given the frequency of wet conditions. The City of Gresham does allow pervious paving materials to be used in the cul-de-sac medians where applicable.*

17. Eliminate redundant non-ADA sidewalks within a site (i.e., sidewalk to all entryways and/or to truck loading areas may be unnecessary for industrial developments).
    **Barrier? No.** *The City of Gresham does not require on-site sidewalks that are not needed to comply with ADA requirements. It already requires, in certain areas, reduced sidewalks to one side of the street only (i.e., in hillside areas or local lane residential streets). On larger streets, sidewalks are needed on both sides for public safety and to encourage walking instead of driving.*

18. Minimize car spaces and stall dimensions, reduce parking ratios, and use shared parking facilities and structured parking.
    **Barrier? No.** *The City of Gresham allows up to 50% of required parking spaces to meet compact (smaller) parking*

*space dimensions. Parking ratios have been reduced from 2 spaces per unit to 1 to 1.75 spaces per unit in downtown, transit areas, and for multifamily residential. No minimum parking requirement exists for downtown, and per the development code, joint parking agreements are allowed to further reduce their ratio. Limits have been placed on the maximum amount of parking that can be provided on a site for commercial, office and industrial development, per Metro Title 2 requirements.*

19. Minimize the number of stream crossings and place crossing perpendicular to stream channel if possible.
**Barrier? No.** *This is already a City of Gresham expectation. The Pleasant Valley and Springwater Plan Districts were planned with this in mind.*

20. Allow narrow street right-of-ways through stream corridors whenever possible to reduce adverse impacts of transportation corridors.
**Barrier? No.** *The City of Gresham does not have code language that prevents this practice. A specific Green Street Standard has been developed that reduces the width of the street right-of-way to the extent practicable where stream crossings are needed.*

*Part (b): Design and Construction Practices to Minimize Impacts on Wildlife Corridors and Fish Passage*

1. Carefully integrate fencing into the landscape to guide animals toward animal crossings under, over, or around transportation corridors.
**Barrier? No.** *The City of Gresham does not have code language that prohibits this practice.*

2. Use bridge crossings rather than culverts wherever possible.
**Barriers? No**. *The City of Gresham does not have code language that prohibits this practice.*

3. If culverts are utilized, install slab, arch or box type culverts, preferably using bottomless designs that more closely mimic stream bottom habitat.
**Barrier? No.** *The City of Gresham does not have code language that prohibits this practice.*

4. Design stream crossings for fish passage with shelves and other design features to facilitate terrestrial wildlife passage.
**Barrier? No**. *The City of Gresham does not have code language that prohibits this practice.*

5. Extend vegetative cover through the wildlife crossing in the migratory route, along with sheltering areas.
**Barrier? No.** *The City of Gresham does not have code language that prohibits this practice.*

*Part (c): Miscellaneous Other Habitat-Friendly Design and Construction Practices*

1. Use native plants throughout the development (not just in HCA).
**Barrier? No.** *The City of Gresham does not have code language that prohibits this practice.*

2. Locate landscaping (required by other sections of the code) adjacent to HCA.
**Barrier? No.** *The City of Gresham does not have code language that prohibits this practice. However, street trees must be next to the street, the required percentage of parking lot landscaping has to be met in parking lots, frontage landscape requirements must be met, and landscape buffer requirements between different land use types must be met. The remaining percentage of landscaping area may be installed adjacent to HCA.*

3. Reduce light spill-off into HCAs from development.
**Barrier? No.** *The City of Gresham does not have code language that prohibits this practice.*

4. Preserve and maintain existing trees and tree canopy coverage, and plant trees, where appropriate, to maximize future tree canopy coverage.
**Barrier? No.** *The City of Gresham does not have code language that prohibits this practice.*