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| City of Tacoma Stormwater Management Manual – Infeasibility ChecklistSurface Type: Other Hard SurfaceBMP L633: Permeable PavementVersion: 07/01/2021 | | | | |
| It is not necessary to answer all questions when determining if a BMP is feasible for Minimum Requirement #5 – The List Approach. Unless otherwise noted, a single answer of No means the BMP is considered infeasible for meeting Minimum Requirement #5 – The List Approach. Applicant may choose which questions to answer when determining feasibility. | | | | |
| Questions #1-24 relate to infeasibility criteria that are based onconditions such as topography and distances to predetermined boundaries. Citation of the following do not need site-specific written recommendations from a Washington State Licensed Professional Engineer or Washington State Licensed Professional Geologist though some criteria may require professional services to determine if the infeasibility criteria apply. | | | | |
| **Question Number** | **Question** | **Yes** | **No** | **NA** |
| **1** | **Can the permeable pavement be placed 10 feet or more from any building structure?** |  |  |  |
| 2 | Can the permeable pavement be placed 5 feet or more from any other structure or property line? |  |  |  |
| 3 | Can the permeable pavement be placed 50 feet or more from the top of any slope greater than 20%? |  |  |  |
| 4 | Can the permeable pavement be placed 50 feet or more from geologically hazardous areas? |  |  |  |
| 5 | Can the permeable pavement be located outside of designated erosion or landslide hazard areas? |  |  |  |
| 7 | Can the permeable pavement be located greater than 10 feet from an underground storage tank (tank used for petroleum product, chemical, or liquid hazardous waste storage) whose capacity including tank and underground connecting pipe is 1100 gallons or less? |  |  |  |
| 8 | Can the permeable pavement be located greater than 100 feet of a closed or active landfill? |  |  |  |
| 9 | Can the permeable pavement be located greater than 100 feet from drinking water well or a spring used for drinking water supply if the permeable pavement is (or has run-on from) a pollution-generating hard surface? |  |  |  |
| 10 | Can the permeable pavement be placed 10 feet or more from small on-site sewage disposal drainfields? (For large on-site sewage disposal setbacks see WAC Chapter 246-727B). |  |  |  |
| 11 | Can the permeable pavement be constructed such that the subgrade is less than 6%? |  |  |  |
| 12 | Can the permeable pavement be constructed such that the wearing course is less than 6% (after reasonable attempts have been made to design the grade)? |  |  |  |
| 13 | Is the location for permeable pavement a multi-level parking garage, above a culvert, or a bridge? An answer of yes means the BMP is not feasible. |  |  |  |
| 14 | Does the road receive more than very low traffic volumes? (Roads with a projected average daily traffic volume of 400 vehicles or less). This infeasibility criterion cannot be used for sidewalks or non-traffic bearing surfaces. An answer of yes means the BMP is not feasible. |  |  |  |
| 15 | Does the road receive more than very low truck traffic? (Roads not subject to through truck traffic but may receive up to weekly use by utility trucks, daily school bus use, and multiple daily use by pick-up trucks, mail/parcel delivery trucks, and maintenance vehicles.). This infeasibility criterion cannot be used for sidewalks or non-traffic bearing surfaces. An answer of yes means the BMP is not feasible. |  |  |  |
| 16 | Does the area typically generate high concentrations of oil due to high traffic turnover or frequent transfer of oil? (See SWMM for additional guidance.) An answer of yes means the BMP is not feasible. |  |  |  |
| 17 | Can the permeable pavement be located outside of areas with industrial activity as identified in 40 CFR 122.26(b)14? |  |  |  |
| 18 | Can permeable pavement be located outside of areas where the risk of concentrated pollutant spills is likely such as gas stations, truck stops, and industrial chemical storage areas? |  |  |  |
| 19 | Can permeable pavement be located outside of areas likely to have long-term excessive sediment deposition after construction? |  |  |  |
| 20 | For properties with known soil or groundwater contamination, can the permeable pavement be located greater than 100 feet from an area known to have deep soil contamination? |  |  |  |
| 21 | For properties with known soil or groundwater contamination, can the permeable pavement be located such that infiltration will not increase or change the direction of the migration of pollutants in the groundwater? (Based upon groundwater modeling). |  |  |  |
| 22 | For properties with known soil or groundwater contamination, can the permeable pavement be located in an area that does not have contaminated surface soils that are proposed to remain in place? |  |  |  |
| 23 | For properties with known soil or groundwater contamination, can the permeable pavement be located in areas not prohibited by an approved cleanup plan under the state Model Toxics Control Act or Federal Superfund Law, or an environmental covenant under Chapter 64.70 RCW? |  |  |  |
| 24 | Will installing permeable pavement cause conflicts with any of the following? (An answer of yes means this BMP is infeasible.) Place a checkmark next to the applicable item (24a-24e). |  |  |  |
| 24a | Requirements of the Historic Preservation Laws and Archeology Laws, Federal Superfund or Washington State Model Toxics Control Act, Federal Aviation Administration requirements for airports, or Americans with Disability Act |  | | |
| 24b | Special zoning district design criteria adopted and being implemented through any City of Tacoma planning efforts |  | | |
| 24c | Public health and safety standards |  | | |
| 24d | Transportation regulations to maintain the option for future expansion or multi-modal use of public rights-of-way |  | | |
| 24e | Critical Area Preservation Ordinance |  | | |
| Questions #25-28 relate to infeasibility criteria that are based upon subsurface characteristics and require a soils report to determine infeasibility. | | | | |
| 25 | Is the depth from the lowest layer designed as part of the permeable pavement section to the seasonal high groundwater elevation, bedrock, or other impermeable layer equal to or greater than 1 foot? |  |  |  |
| 26 | For pollution generating pervious pavement surfaces, can the soil suitability criteria for treatment be met? (See SWMM – BMP L633) |  |  |  |
| 27 | Was the soil classified as having a measured native soil saturated hydraulic conductivity of 0.3 in/hour or more*?* |  |  |  |
| 28 | Is the existing impervious surface that will be replaced non-polluting generating and located over an outwash soil with a saturated hydraulic conductivity of 4 inches/hour or greater? |  |  |  |
| **Questions 29-40 require evaluation of site specific conditions and a written recommendation from an appropriate Washington State Licensed Professional (e.g., Professional Engineer, Professional Geologist, Professional Hydrogeologist).** | | | | |
| 29 | Will the proposed permeable pavement location threaten the safety or reliability of preexisting underground utilities, preexisting underground storage tanks, preexisting structures, or preexisting road or parking lot surfaces? (An answer of yes means the BMP is infeasible). |  |  |  |
| 30 | Will infiltrating and ponded water compromise existing adjacent impervious pavements? (An answer of yes means the BMP is infeasible). |  |  |  |
| 31 | Are there reasonable concerns about erosion, slope failure, or downgradient flooding due to infiltration? (An answer of yes means the BMP is infeasible). |  |  |  |
| 32 | Can the permeable pavement be located outside area whose groundwater drains into an erosion hazard or landslide hazard area? |  |  |  |
| 33 | Will infiltrating water threaten existing below grade basements? (An answer of yes means the BMP is infeasible). |  |  |  |
| 34 | Will infiltrating water threaten shoreline structures such as bulkheads? (An answer of yes means the BMP is infeasible). |  |  |  |
| 35 | Can permeable pavement be located away from the bottom of steep, erosion prone areas that are likely to erode sediment? |  |  |  |
| 36 | Can permeable pavement be located away from fill soils that can become unstable when saturated? |  |  |  |
| 37 | Will permeable pavement construction on steep slopes cause erosion and structural failure? (An answer of yes means the BMP is infeasible). |  |  |  |
| 38 | Will permeable pavement construction on steep slopes cause runoff velocities that preclude adequate infiltration at the pavement surfaces? (An answer of yes means the BMP is infeasible). |  |  |  |
| 39 | Can permeable pavement provide sufficient strength to support the anticipated loads? |  |  |  |
| 40 | Are underlying soils suitable for supporting traffic loads when saturated? |  |  |  |