Drainage Review 101 and 2021 Code Update

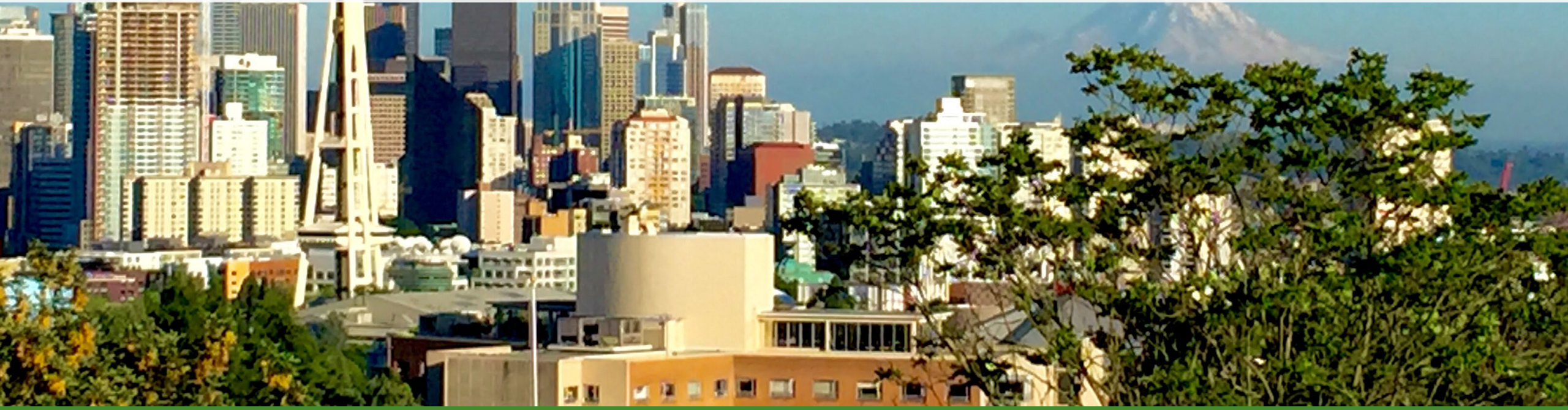


Photo by John Skelton

City of Seattle

SDCI Training

May, 2021

DRAINAGE REVIEW 101

- Provide an Overview of Drainage Review requirements for SDCI Applications
- Included are updates to the Stormwater Code scheduled to be adopted on July 1st, 2021
- Presentation is available online on our Stormwater Code website:

http://www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/stormwater-codewater Code - SDCI | seattle.gov

Q & A sessions will be posted on the SDCI website and updated regularly

Contact Us:
SideSewerInfo@seattle.gov
206-684-5362

STORMWATER CODE WEBSITE TOUR

http://www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/stormwater-code

AGENDA

- Thresholds
- Preliminary Drainage Review
- Approved Points of Discharge
- On-Site Stormwater Management
- Infiltration Feasibility and Testing (Separate training session)
- OSM BMPs (Separate training session)
- Standard Plans

Visit the Stormwater Code Page for all the documents discussed in this presentation

www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/stormwater-code

THRESHOLDS

THRESHOLDS

Based on New Plus Replaced Hard Surface

All Projects	> 750 SF	> 750 SF + New lot	> 1,500 SF	> 2,000 SF Parcel Based	> 5,000 SF
Side Sewer Review	**Drainage Review**	**Drainage Review and OSM**	**OSM All Projects**	**FC may apply**	**PE REQ WQ may apply**
• SS Conflicts • Discharge Points	• CSC Sheet • DWC Sheet with OSM project info Completed • Small PIT for no approved discharge point	• OSM BMPs • Complete Summary Sheet • PDF of entire workbook • Infiltration testing			

THRESHOLDS

22.805.050 – Parcel-Based Project Thresholds

Requirement	Existing (2016) Code	2021 Code
• On-site Stormwater Management	*750 sf or 1,500*	*750 sf or 1,500*
• Flow Control (FC) – Combined	*10,000 sf*	***5,000 sf***
• FC – Creek Basins	*2,000 sf*	**5,000 sf**
• FC – Small Lake Basins	*2,000 sf*	2,000 sf
• FC – Capacity Constrained	*2,000 sf*	*2,000 sf*
• Engineer of Record Required	5,000 sf	5,000 sf
• Single-family Residential Definition	10,000 sf	**5,000 sf**

… SFR >5,000 sf = Parcel-Based Project

THRESHOLDS

22.170.060 – Grading Permit Required (Thresholds)

- Changed Land Disturbing Activity from 1 acre to 5,000 square feet
- Changed New Plus Replace Hard Surface from 2,000 square feet to 750 square feet
- Added extracting groundwater (e.g., dewatering wells for construction or remediation)

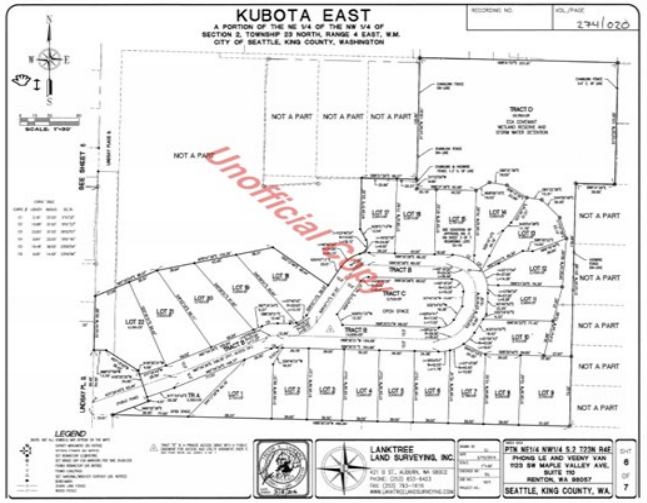
	2016 Drainage Review Thresholds	2021 Drainage Review Thresholds	Current Grading Permit Threshold	New Grading Permit Threshold
Land Disturbing Activity Area	750 SF	5,000 SF ↑	1 acre	5,000 SF ↓
New Plus Replaced Hard Surface Area	750 SF	750 SF	2,000 SF	750 SF ↓

PRELIMINARY DRAINAGE REVIEW

PRELIMINARY DRAINAGE REVIEW

Provide clarification and consistency of MUP Drainage Review and requirements for Short Plats and Subdivisions

- Clarified Submittal Requirements Preliminary Drainage Control Review
  - Preliminary Drainage Plan w/ Site Plan
  - Preliminary Drainage Report
- Clarified which types of MUPs require Preliminary Drainage Control Review
- Established requirements for Shared Drainage Facilities in Subdivisions and Short Plats



PRELIMINARY DRAINAGE REVIEW

MUPs That Will Always Require Preliminary Drainage Review

- Subdivisions and Short Plats
  - Drainage Plans/Report may be deferred to the Building Permits if …
    - Flow Control and Water Quality are not required.
    - There is available stormwater infrastructure.
    - The Plat is conditioned to require a mainline extension.
- Lot Boundary Adjustments
  - Only require Preliminary Drainage Plans if there is no available stormwater infrastructure.
- Unit Lot Subdivisions
  - Only require Preliminary Drainage Plans if Drainage Plans have not already been submitted with a Building Permit.

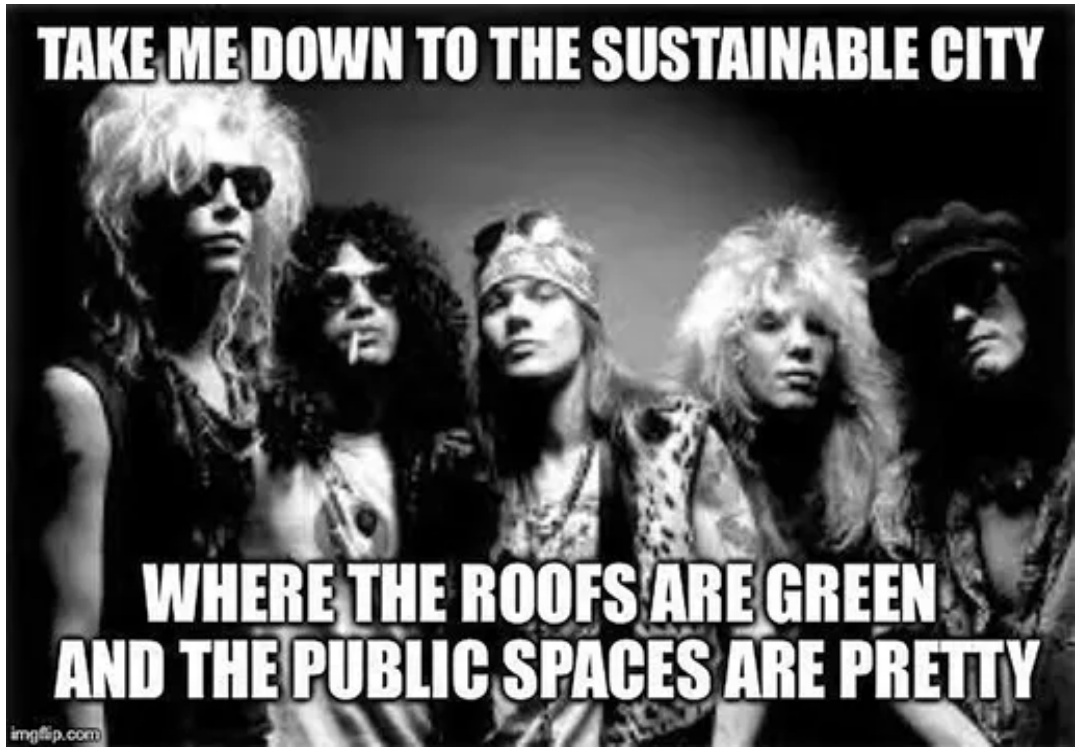
PRELIMINARY DRAINAGE REVIEW

MUPs That May Require Preliminary Drainage Review

Any MUP that would allow development that includes **750 square feet** or more of new plus replaced hard surface or **5,000 square feet of land disturbing activity** where the Director has determined that a preliminary drainage review is required considering, but not limited, to the following attributes of the site:

- Location within an environmentally critical area (ECA) or buffer;
- Proximity and tributary to an ECA or buffer; or
- Proximity and tributary to an area with adequacy, erosion, water quality, or flooding problems.

APPROVED POINTS OF DISCHARGE



WHERE DO YOU CONNECT?

- Stormwater, Subsurface Drainage and Sanitary points of connection are identified in the Preliminary Assessment Report
- If project did not require a PAR you can contact us to make this determination
- Stormwater
  - Public Storm System
  - Curb/Alley Discharge (“Small Projects Only”)
  - Public Combined Sewer
  - Onsite Infiltration/Dispersion
- 2021 Change – “Formerly Combined” no longer an approved point of Stormwater Discharge
- All points of Discharge must be clearly shown on plans.

ON-SITE STORMWATER MANAGEMENT

ON-SITE STORMWATER MANAGEMENT

- Two methods to meet requirement:

On-Site List Approach	On-Site Performance Standard
• Choose BMP in highest category feasible	• Choose BMPs to meet discharge requirements
• BMPs are pre-sized except Rainwater Harvesting	• Continuous Rainfall-Runoff Modeling • Requires a report and sizing calculations (PE Required)

ON-SITE STORMWATER MANAGEMENT

Refer to Appendix C – On-site Stormwater Management Infeasibility Criteria

- New/revised infeasibility criteria
- Revised on-site list categories 1-5
- Added criteria for new BMP: Sidewalk/Trail Compost-Amended Strip (Table C.3)
- Built into On-site List Calculator

Table C.4. On-site List Infeasibility Criteria: Category 3 BMPs.[a]

BMP	On-site List Infeasibility Criteria	Additional Information from Applicant
Sheet Flow Dispersion	• One or more of the infeasibility criteria for "All BMPs" or "All Dispersion BMPs" (Table C.1) apply. • The area to be dispersed (e.g., driveway, patio) exceeds a slope of 15 percent. • The minimum vegetated flow path for sheet flow dispersion cannot be met. Note: A 10-foot flowpath is required to disperse runoff from a contributing flow length of up to 20 feet. An additional 10 feet of flow path is required for each additional 20 feet of contributing flow path or fraction thereof. Refer to *Volume 3, Figure 5.5.* • The flowpath does not meet the minimum horizontal setback requirements to property lines, structures and other flowpaths (refer to *Volume 3, Section 5.3.5*).	

Table C for 22.805.070
On-site List for Parcel-based Projects

Category	BMPs	Projects Discharging to a Receiving Water Not Designated by Section 22.801.050, Public Combined Sewer, or Capacity-constrained System, or its Basin	Projects Discharging to a Designated Receiving Water or its Basin
1	Full Dispersion	R, S	R, S
	Infiltration Trenches	R, S[g]	R, S[g]
	((~~Dry Wells~~)) Drywells	R, S[g]	R, S[g]
2	Rain Gardens	R[a], S[a]	R[a], S[a]
	Infiltrating Bioretention	R, S	R, S
	Rainwater Harvesting—Category 2 Sizing	((~~R[b]~~)) X[g]	X[g]
	Permeable Pavement Facilities	R, S	R, S
	Permeable Pavement Surfaces	S	S
	Sidewalk/Trail Compost-Amended Strip	S	S
3	Sheet Flow Dispersion	R, S	R, S
	Concentrated Flow Dispersion	S	S
	Splashblock Downspout Dispersion	R	R
	Trench Downspout Dispersion	R	R
	((~~Non-infiltrating Bioretention~~))	((~~R, S~~))	((~~R, S~~))
	((~~Vegetated Roofs~~))	((~~R[c]~~))	((~~X~~))
4	Non-infiltrating Bioretention	R[d], S[d]	R[d], S[d]
	Rainwater Harvesting—Category 4 Sizing	R[b,f]	X[f]
	Vegetated Roofs	R[c]	X
((~~4~~)) 5	Perforated Stub-out Connections	R	R
	((~~Newly Planted~~)) Trees	S	S

1 2 3 4 5 6

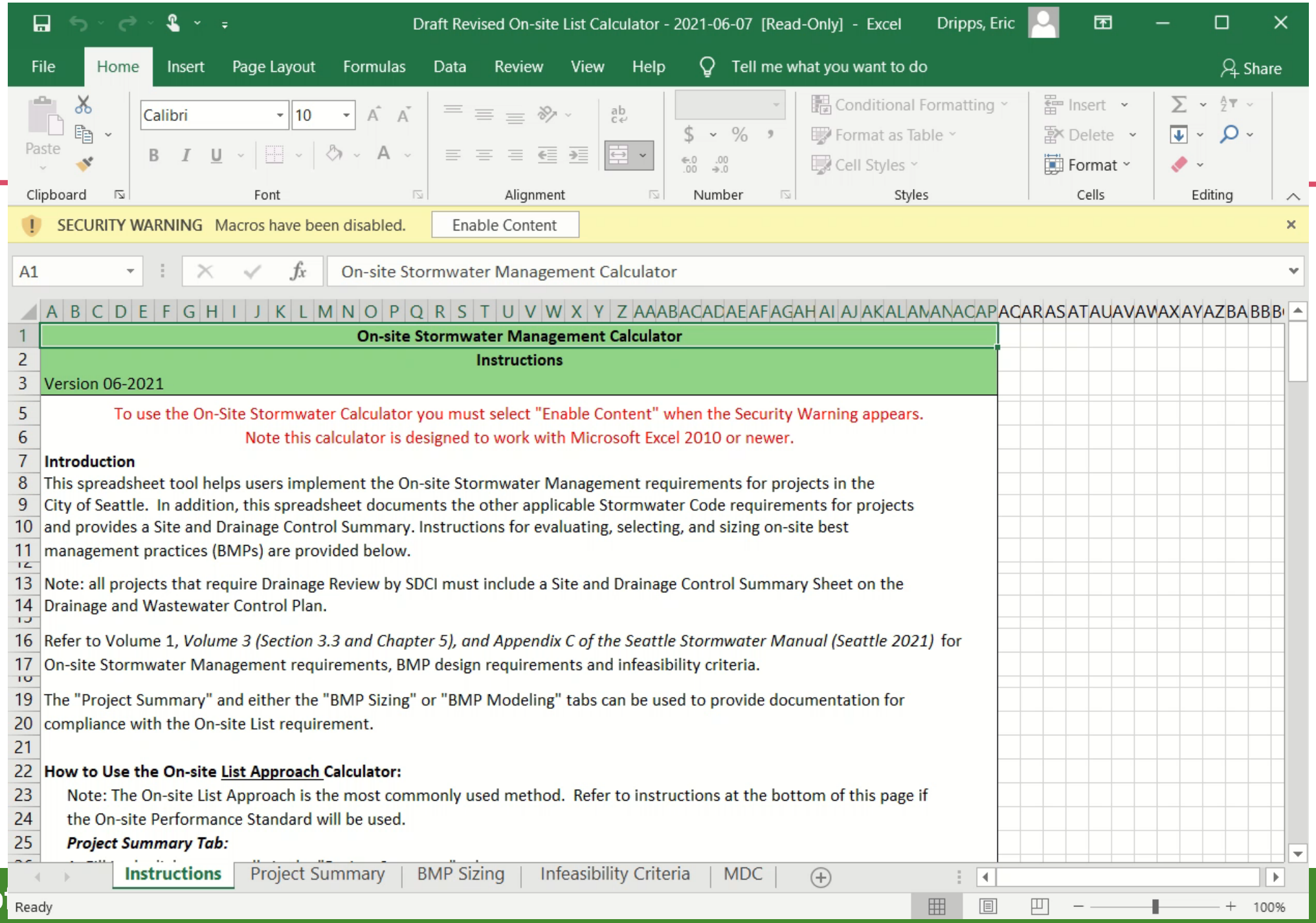
Table A for 22.805.070
On-site List for Single-family Residential Projects

Category	BMPs	All Discharge Locations
1	Full Dispersion	R, S
	Infiltration Trenches	R, S [d]
	((~~Dry Wells~~)) Drywells	R, S [d]
2	Rain Gardens [a]	R, S
	Infiltrating Bioretention	R, S
	Rainwater Harvesting—Category 2 Sizing	X [b]
	Permeable Pavement Facilities	R, S
	Permeable Pavement Surfaces	S
	Sidewalk/Trail Compost-Amended Strip	S
3	Sheet Flow Dispersion	R, S
	Concentrated Flow Dispersion	S
	Splashblock Downspout Dispersion	R
	Trench Downspout Dispersion	R
	((~~Non-infiltrating Bioretention~~))	((~~R, S~~))
	((~~Vegetated Roofs~~))	((~~X~~))
4	Non-infiltrating Bioretention	R, S
	Rainwater Harvesting—Category 4 Sizing	X [c]
	Vegetated Roofs	X
((4)) 5	Single-family Residential Cisterns	R
	Perforated Stub-out Connections	R
	((~~Newly Planted~~)) Trees	S

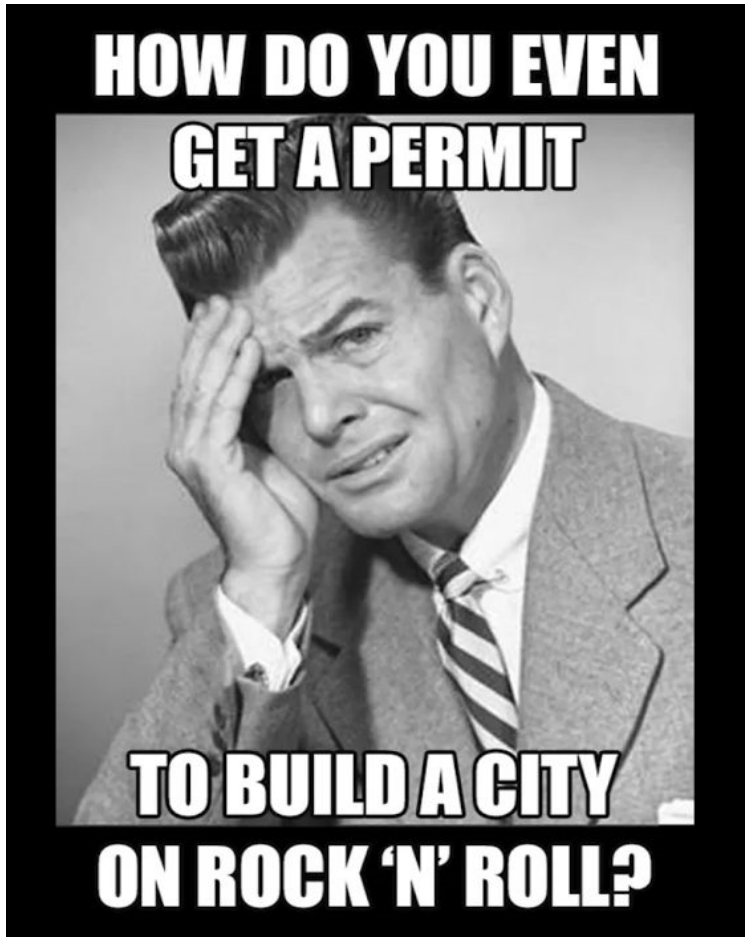
ON-SITE STORMWATER MANAGEMENT

- On-Site List Calculator has been updated.
- Updates periodically. Please use the most up-to-date version from the website.
- Use the Preliminary Assessment Report (PAR)
- Enable Content
- Combine as many surfaces as possible for clarity

www.seattle.gov/Documents/Departments/SDCI/Forms/OnSiteStormwaterListCalculator.xlsm


Draft Revised On-site List Calculator - 2021-06-07 [Read-Only] - Excel
Dripps, Eric
File
Home
Insert
Page Layout
Formulas
Data
Review
View
Help
Tell me what you want to do
Share
Paste
Calibri
10
Conditional Formatting
Format as Table
Cell Styles
Insert
Delete
Format
Clipboard
Font
Alignment
Number
Styles
Cells
Editing
SECURITY WARNING Macros have been disabled.
Enable Content
A1
On-site Stormwater Management Calculator
On-site Stormwater Management Calculator
Instructions
Version 06-2021
To use the On-Site Stormwater Calculator you must select "Enable Content" when the Security Warning appears.
Note this calculator is designed to work with Microsoft Excel 2010 or newer.
Introduction
This spreadsheet tool helps users implement the On-site Stormwater Management requirements for projects in the City of Seattle. In addition, this spreadsheet documents the other applicable Stormwater Code requirements for projects and provides a Site and Drainage Control Summary. Instructions for evaluating, selecting, and sizing on-site best management practices (BMPs) are provided below.
Note: all projects that require Drainage Review by SDCI must include a Site and Drainage Control Summary Sheet on the Drainage and Wastewater Control Plan.
Refer to Volume 1, Volume 3 (Section 3.3 and Chapter 5), and Appendix C of the Seattle Stormwater Manual (Seattle 2021) for On-site Stormwater Management requirements, BMP design requirements and infeasibility criteria.
The "Project Summary" and either the "BMP Sizing" or "BMP Modeling" tabs can be used to provide documentation for compliance with the On-site List requirement.
How to Use the On-site List Approach Calculator:
Note: The On-site List Approach is the most commonly used method. Refer to instructions at the bottom of this page if the On-site Performance Standard will be used.
Project Summary Tab:
Instructions
Project Summary
BMP Sizing
Infeasibility Criteria
MDC
Ready
100%

STANDARD PLANS



STANDARD PLANS

- Drainage and Wastewater Control (DWC) Plan
- Standard Construction Stormwater Control and Post Construction Soil Management Plan (CSC or CSC/SOIL Plan)

CONSTRUCTION STORMWATER CONTROL (CSC) GENERAL NOTES

1. A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY. SCHEDULE A FIRST GROUND DISTURBANCE INSPECTION FOR AN ISSUED BUILDING PERMIT AT 206-684-8900 OR ONLINE AS DESCRIBED AT http://www.seattle.gov/sdci/inspections/site-development-inspections
2. THE APPLICANT SHALL DESIGNATE AN EROSION AND SEDIMENT CONTROL (ESC) SUPERVISOR WHO SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS). FOR LARGE CONSTRUCTION PROJECTS, THE ESC SUPERVISOR SHOULD BE A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL). PROVIDE THE NAME AND PHONE NUMBER OF THE ESC SUPERVISOR TO THE SITE INSPECTOR AT THE FIRST GROUND DISTURBANCE INSPECTION.
3. BMPS SHALL BE INSTALLED PRIOR TO STARTING CONSTRUCTION TO ENSURE SEDIMENT-LADEN WATER DOES NOT LEAVE THE PROJECT SITE OR ENTER ROADSIDE DITCHES, STORM DRAINS, SURFACE WATERS, OR WETLANDS.
4. THE BMPS INCLUDED IN THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. THE APPLICANT IS RESPONSIBLE FOR ENSURING THAT BMPS ARE MODIFIED AS NEEDED FOR UNEXPECTED STORM EVENTS OR OTHER UNFORESEEN CIRCUMSTANCES, AND TO ACCOUNT FOR CHANGING SITE CONDITIONS.
5. ANY AREAS OF DISTURBED SOIL THAT WILL NOT BE WORKED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) OR SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) SHALL BE IMMEDIATELY STABILIZED WITH APPROVED BMPS METHODS (E.G. STRAW, MULCH, PLASTIC COVERING, COLD MIX, ETC.)
6. GRADING AND/OR SOIL DISTURBING ACTIVITIES MAY BE LIMITED OR PROHIBITED FOR CERTAIN SITES SUBJECT TO ECA STANDARDS (I.E. ECA STEEP SLOPES, LANDSLIDE PRONE AREAS, ETC.) BETWEEN OCTOBER 31ST AND APRIL 1ST. IF NOTED IN THE GEOTECHNICAL SPECIAL INSPECTIONS REQUIREMENTS, A GRADING SEASON EXTENSION LETTER (GSEL) ISSUED BY SDCI IS REQUIRED FOR ALL GRADING AND/OR SOIL DISTURBING ACTIVITIES DURING THIS PERIOD. THE GEOTECHNICAL SPECIAL INSPECTOR MUST SUBMIT ELECTRONIC APPLICATIONS FOR A GSEL USING THE SDCI PROJECT PORTAL. ALLOW FOUR TO SIX WEEKS FOR PROCESSING. FAILURE TO OBTAIN THE GSEL PRIOR TO OCTOBER 31 MAY RESULT IN A WORK STOPPAGE.
7. CITY STREETS AND SIDEWALKS SHALL BE KEPT CLEAN AT ALL TIMES. NO MATERIAL SHALL BE STORED ON CITY STREETS OR SIDEWALKS WITHOUT A STREET USE PERMIT FROM THE SEATTLE DEPARTMENT OF TRANSPORTATION (SDOT).
8. POLLUTION CONTROL MEASURES SHALL BE FOLLOWED TO ENSURE THAT NO LIQUID PRODUCTS OR CONTAMINATED WATER ENTERS ANY STORM DRAINAGE FACILITIES OR OTHERWISE LEAVES THE PROJECT SITE. ANY HAZARDOUS MATERIALS OR LIQUID PRODUCTS THAT HAVE THE POTENTIAL TO POLLUTE RUNOFF SHALL BE STORED AND DISPOSED OF PROPERLY.
9. ENSURE THAT WASHOUT FROM CONCRETE TRUCKS IS PERFORMED OFF-SITE OR IN DESIGNATED CONCRETE WASHOUT AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS ONTO THE GROUND, OR TO STORM DRAINS OR OPEN DITCHES. DO NOT DUMP EXCESS CONCRETE ONSITE, EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS.
10. ALL AREAS OF DISTURBED SOIL SHALL BE FULLY STABILIZED WITH THE APPROPRIATE SOIL AMENDMENT AND COVER MEASURES AT COMPLETION OF THE PROJECT. TYPICAL COVER MEASURES INCLUDE LANDSCAPING OR HYDROSEED WITH MULCH.

CONSTRUCTION STORMWATER CONTROL (CSC) PLAN REQUIREMENTS / NARRATIVE

SHOW TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPS) IN THE PLAN VIEW OF THIS SHEET THAT WILL ACCOMPLISH THE MINIMUM REQUIREMENTS DESCRIBED IN THE NARRATIVE BELOW. THE BMPS SHOWN IN THE PLAN VIEW OF THIS PLAN ARE THE MINIMUM REQUIRED. ADDITIONAL BMPS ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- RETAIN TOP LAYER AND NATIVE VEGETATION
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPs
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES
- PHASE THE PROJECT
- INSTALL PERMANENT FLOW CONTROL AND WATER QUALITY FACILITIES
- PROTECT STORMWATER BMPs PRIOR TO, DURING, AND AFTER CONSTRUCTION

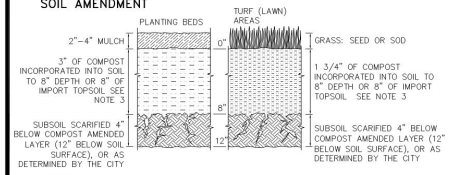
POST CONSTRUCTION SOIL MANAGEMENT PLAN

AT THE END OF PROJECT, ALL AREAS DISTURBED AND NOT COVERED WITH A HARD SURFACE MUST BE AMENDED PER THE SOIL AMENDMENT DETAIL BELOW AND PROBE TO 12-INCHES AT THE SITE FINAL INSPECTION.

LABEL ALL AREAS DISTURBED AND NOT COVERED WITH A HARD SURFACE AS ONE OF THE FOLLOWING: SA (SOIL AMENDMENT AREA) or ND (NON-DISTURBED AREA).

- NON-DISTURBED AREA (ND): VEGETATED AREAS THAT WILL NOT BE SUBJECT TO LAND DISTURBING ACTIVITY DO NOT REQUIRE SOIL AMENDMENT IF THEY ARE FENCED AND CONTINUOUSLY PROTECTED THROUGHOUT CONSTRUCTION. THE FENCING MUST BE IN PLACE AT THE FIRST GROUND DISTURBANCE INSPECTION. NO DISTURBANCE, INCLUDING VEHICLE TRAFFIC OR MATERIAL STORAGE, IS ALLOWED IN THESE AREAS UNTIL FINAL INSPECTION.
- SOIL AMENDMENT AREA (SA): VEGETATED OR COMPOST AREAS (TURF AND LANDSCAPE) MUST BE AMENDED PER THE SOIL AMENDMENT DETAIL. THIS INCLUDES AREAS IMPACTED BY CLEARING AND GRADING, STOCKPILING, SITE ACCESS, PATHWAYS AND MATERIALS OR EQUIPMENT STORAGE.

SOIL AMENDMENT

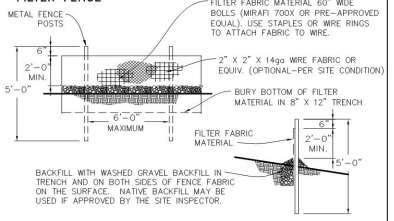


NOTES:

1. POST CONSTRUCTION SOIL AMENDMENT IS REQUIRED ON ALL AREAS NOT COVERED BY HARD SURFACE WHERE SOIL IS DISTURBED DURING CONSTRUCTION.
2. SOIL AMENDMENT MUST PASS A 12 INCH MINIMUM PROBE TEST.
3. IMPORT TOPSOIL, IF USED, MUST MEET THE REQUIREMENTS OF THE SEATTLE STORMWATER MANUAL, VOL. 1, SECTIONS 5.1.5.1 AND 5.1.5.3.

SYMBOL: (SA) AREA REQUIRING SOIL AMENDMENT (ND) NON-DISTURBED AREA (SOIL AMENDMENT NOT REQUIRED)

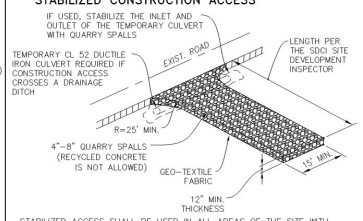
FILTER FENCE



NOTE: ANGLE SILT FENCE BACK UP THE SLOPE AT THE END OF RUN.

SYMBOL: (FF)

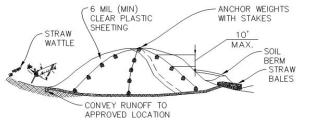
STABILIZED CONSTRUCTION ACCESS



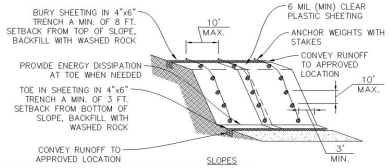
STABILIZED ACCESS SHALL BE USED IN ALL AREAS OF THE SITE WITH VEHICLE TRAFFIC AND PARKING, INCLUDING PLANTING STRIPS. RECYCLED CONCRETE IS NOT ALLOWED.

SYMBOL: (CE)

STOCKPILE AND EXPOSED SLOPE COVERING



STOCKPILES



SLOPES

SYMBOL: (SP)

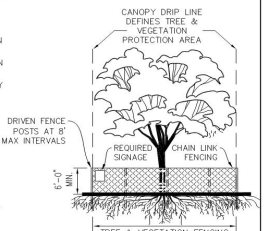
TREE & VEGETATION PROTECTION

TREE PROTECTION FENCING AND SIGN

1. CHAIN LINK FENCE REQUIRED (NO ORANGE CONSTRUCTION FENCE OR PLYWOOD)
2. MINIMUM 6' HIGH
3. FENCE SHALL BE SUPPORTED BY RIGID POSTS DRIVEN INTO THE GROUND AT 8' MAXIMUM INTERVALS
4. MUST BE INSTALLED PRIOR TO DEMOLITION OR GROUND DISTURBANCE
5. KEPT IN PLACE FOR THE DURATION OF CONSTRUCTION
6. NO DUMPING OF ANY MATERIALS IN THE PROTECTION AREA
7. NO SOIL DISTURBANCE OR ACTIVITY ALLOWED WITHIN FENCED AREA: MATERIAL STORAGE,/STOCKPILING, PARKING, EXCAVATION, DUMPING, OR WASHING
8. MODIFICATIONS OF THESE REQUIREMENTS BY APPROVAL OF SDCI PLANNER ONLY
9. IF ROOTS GREATER THAN 2 INCH FOUND OUTSIDE OF FENCING, PROTECT BY HAND EXCAVATION AND, IF NECESSARY, CUT CLEANLY AND KEEP MOIST
10. USE 3 INCHES OR DEEPER WOOD CHIP MULCH OUTSIDE FENCED AREAS TO PROTECT FEEDER ROOTS

VEGETATION PROTECTION (DOES NOT APPLY TO TREES)

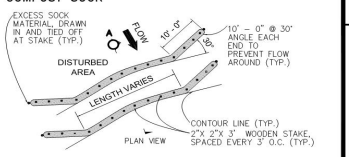
1. ORANGE MESH OR SIMILAR OPEN MATERIAL
2. PROTECT VEGETATION OUTSIDE CONSTRUCTION ZONE WITH FENCING AS SHOWN

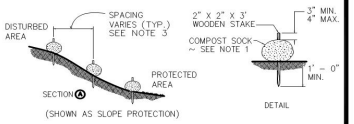


LINK TO REQUIRED TREE PROTECTION SIGNAGE:

SYMBOL: (VEG)

COMPOST SOCK





1. COMPOST SOCK SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 9.14.4(9). COMPOST SOCK SHALL BE A MINIMUM OF 10" IN DIAMETER OR SIZED TO SUIT CONDITIONS AS SPECIFIED BY THE ENGINEER.
2. ALWAYS INSTALL COMPOST SOCK PERPENDICULAR TO SLOPE AND ALONG CONTOUR LINES.
3. REMOVE SEDIMENT FROM THE UP SLOPE SIDE OF THE COMPOST SOCK WHEN ACCUMULATION HAS REACHED 1/2 OF THE EFFECTIVE HEIGHT OF THE COMPOST SOCK.
4. MAY BE USED IN PLACE OF FILTER FENCE FOR PREMIER CONTROL.

SYMBOL: (CS)

CONSTRUCTION STORMWATER CONTROL & POST CONSTRUCTION SOIL MANAGEMENT (CSC/SOIL)PLAN

NOTE: THIS PLAN IDENTIFIES THE MINIMUM MEASURES REQUIRED; ADDITIONAL MEASURES MAY BE REQUIRED BASED ON CONSTRUCTION METHODS AND ACTUAL AREA OF DISTURBANCE.

SCALE: 1" = 10' NORTH ARROW

DPD APPROVAL STAMP

TEMPLATE VERSION: 2021-06-08

CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS

STANDARD CONSTRUCTION STORMWATER CONTROL AND POST CONSTRUCTION SOIL MANAGEMENT (CSC/SOIL) PLAN
APPLICANT PLAN SET

SDCI PERMIT NO.: 6_____-CN
ADDRESS: ------ SEATTLE, WA
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 00/00/0000

STANDARD CSC/SOIL PLAN

SHEET CSC

DRAINAGE & WASTEWATER CONTROL PLAN REQUIREMENTS

THIS PLAN SHALL SHOW A SITE PLAN INCLUDING ALL DRAINAGE FEATURES (HARD SURFACES, BMPS, DRAIN LINES, CATCH BASINS, INLETS, PUMPS, ETC.) AND ALL SIDE SEWER FEATURES (SERVICE DRAIN SIDE SEWERS AND SANITARY SIDE SEWERS AND THEIR APPROVED POINTS OF CONNECTION).

SEE VOLUME 1, CHAPTER 8 OF THE 2021 SEATTLE STORMWATER MANUAL FOR SITE AND DRAINAGE ELEMENTS REQUIRED ON THIS PLAN. THE STORMWATER MANUAL AND CAD TEMPLATES FOR THIS PLAN ARE AVAILABLE AT THE FOLLOWING LINK: http://www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/stormwater-code

SITE AND DRAINAGE CONTROL SUMMARY SHEET

COMPLETE THE ELECTRONIC ON-SITE STORMWATER MANAGEMENT CALCULATOR AND INSERT THE SITE AND DRAINAGE CONTROL SUMMARY SHEET BELOW. THE ELECTRONIC DOCUMENT IS AVAILABLE ON THE DPD STORMWATER CODE WEBSITE:
http://www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/stormwater-code

SEE THE INSTRUCTIONS TAB IN THE EXCEL FILE FOR GUIDANCE TO SELECT AND DOCUMENT THE ON-SITE STORMWATER MANAGEMENT BMPS IF REQUIRED.

On-site Stormwater Management Calculator
Site and Drainage Control Summary

Version 06-2021

To use the On-Site List Calculator you must select "Enable Content" when the Security Warning appears.

Project Information

Site Address | SDCI Project Number
Primary Contact | SDOT Project Number
Project Type | Primary Contact E-mail or Phone
Is this project "Closely Related" to other SDCI construction permits/projects? ◇ ○ Yes ◉ No
List all "Closely Related" SDCI Construction Permit Numbers
Is this project associated with a Short Plat or Subdivision? No | SDCI MUP Number
Total Site Area ___ sf ◇
Total Existing Hard Surface Area ___ sf ◇
Total New plus Replaced Hard Surface (NPRHS) Area ___ sf ◇
Total New and/or Replaced Lawn and Landscaping ___ sf ◆
Total Closely Related and/or Short Plat/Subdivision Site Area ___ sf ◇
Total Closely Related and/or Short Plat/Subdivision NPRHS ___ sf ◇
Undisturbed and Protected Site Area ___ sf ◇
Was the project lot created or reduced in size after Jan 1, 2016?

Site Information

Note: If required for your project, reference the Preliminary Assessment Report (PAR) to complete this section. If the total areas proposed are different from those provided in the PAR, requirements may change.

Approved Point of Stormwater Discharge
Drainage Basin
Is the downstream drainage system considered Capacity Constrained by SPU?
Approved Point of Wastewater Discharge
Approved Point of Sub-Surface Discharge

Select Flow Control Standard: ☐ Pre-Developed Pasture Standard ☐ Peak Control Standard ☐ Pre-Developed Forest Standard ☐ Wetland Protection Standard ☐ Existing Conditions Standard ☐ None

Project will permanently discharge groundwater? ◇
Select Required Water Quality Treatment Standard ◇ ☐ Oil Control ☐ Enhanced ☐ Basic ☐ None
Total Pollution Generating Hard Surface Area ___ sf
Total Pollution Generating Pervious Surface Area ___ sf
Total Closely Related and/or Short Plat/Subdivision Pollution Generating Hard Surface Area ___ sf ◇
Total Closely Related and/or Short Plat/Subdivision Pollution Generating Pervious Surface Area ___ sf ◇
Source Control is required ◇
Environmentally Critical Areas ◇

☐ Steep Slope ☐ Potential Slide ☐ Riparian Corridor ☐ Wetland ☐ Liquefaction ☐ Flood Prone
☐ Landfill ☐ Known Landslide ☐ Fish / Wildlife ☐ Peat / Groundwater Management ☐ Shoreline Habitat

Is there soil and/or groundwater contamination on this site? Yes

Infiltration Information

Is infiltration investigation required?
Is infiltration on the site feasible?
Site Measured Infiltration Rate ___ x Infiltration Rate Correction Factor ___ = 0 Site Design Inf Rate

On-site Stormwater Management (select List Approach or Performance Standard) ◇

◉ On-site List Approach (Pre-sized Approach) Calculator -- Complete the Surface tabs and BMP Sizing tabs. (Most commonly used option.)

○ On-site Performance Standard -- ◇ Submit continuous runoff stormwater modeling and a Drainage Report prepared by a licensed Civil Engineer and complete the BMP Modeling tab. (Use also for No Off-site Point of Discharge) ◇

Number of roof areas 0
Number of other surface areas 0
Enter number of surface areas and hit Enter

Surface	Surfaces Description	On-site BMP	Contrib. Area (sf)	Facility Size (sf)	Facility Configuration
Total New/Replaced Roof Area		0	Total Roof Area Managed		0
Total New/Replaced Other Surface Area		0 ◇	Total Other Surface Managed		0
Total Area Managed		0 sf	Total Volume Managed On Site		0 gal
Estimated compost required for soil amendment		0 cy	*Volume of compost required for soil amendment will be verified by the SDCI Site Inspector for SDCI permitted projects.*		

seattle.gov

ON-SITE STORMWATER MANAGEMENT PLANTINGS

PLANTING GENERAL NOTES
1. PLANTS SHALL BE SITED ACCORDING TO SUN, SOIL, WIND AND MOISTURE REQUIREMENTS.
2. AT A MINIMUM, PROVISIONS MUST BE MADE FOR SUPPLEMENTAL IRRIGATION DURING THE FIRST TWO GROWING SEASONS.

BIORETENTION CELLS, PLANTERS, AND RAIN GARDEN NOTES
1. FOR A LIST OF APPROVED PLANTS FOR BIORETENTION/RAIN GARDEN FACILITIES, SEE APPENDIX E, SECTION E-9 OF THE SEATTLE STORMWATER MANUAL.
2. VEGETATION COVERAGE OF SELECTED PLANS MUST ACHIEVE 90-PERCENT COVERAGE WITHIN 2 YEARS OR ADDITIONAL PLANTINGS SHALL BE PROVIDED. UNLESS DESIGNED BY A LICENSED LANDSCAPE ARCHITECT, PROVIDE A MINIMUM OF 1 PLANT PER EVERY 2 SQUARE FEET OF BIORETENTION BOTTOM AND SLOPED SIDE AREA.
3. PROVIDE A MINIMUM OF THREE DIFFERENT SPECIES OF SHRUBS AND HERBACEOUS PLANTS IN EACH FACILITY.

VEGETATED ROOF NOTES
1. APPROPRIATE PLANTS INCLUDE SUCCULENTS, GRASSES, HERBS, AND WILDFLOWERS THAT ARE ADAPTED TO HARSH CONDITIONS. PLANTS MAY BE INSTALLED AS PRE-GROWN MATS, INDIVIDUAL PLUGS, CUTTINGS, OR SPREAD AS SEEDS.
2. VEGETATION COVERAGE OF SELECTED PLANS MUST ACHIEVE 80-PERCENT COVERAGE WITHIN 2 YEARS OR ADDITIONAL PLANTINGS SHALL BE PROVIDED.
3. A LANDSCAPE MANAGEMENT PLAN SHALL BE DEVELOPED AND IMPLEMENTED.

STORMWATER FACILITIES/CONTROL OPERATIONS & MAINTENANCE REQUIREMENTS

ALL STORMWATER FACILITIES/CONTROLS SHALL BE OPERATED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2021 SEATTLE STORMWATER MANUAL, APPENDIX G.

SIDE SEWER AND DRAINAGE PERMIT NOTES

1. SIDE SEWERS AND DRAINAGE FACILITIES SHALL BE CONSTRUCTED PER THE "REQUIREMENTS FOR DESIGN OF SIDE SEWERS (DRAINAGE & WASTEWATER)" DIRECTORS' RULE DPD 4-2011/2011-004 AND PER THE "2021 SEATTLE STORMWATER MANUAL." DIRECTORS' RULE SDCI 10-2021/SPU DWW-200.
2. A SEPARATE DRAINAGE AND SIDE SEWER PERMIT IS REQUIRED FOR ALL ONSITE DRAINAGE ELEMENTS AND SIDE SEWERS/SERVICE DRAINS. APPROVAL OF THIS PLAN IS REQUIRED PRIOR TO OBTAINING A DRAINAGE AND SIDE SEWER PERMIT.
3. RE-USE OF EXISTING SIDE SEWERS WHEN THERE WILL BE AN INCREASE IN LIVING UNITS REQUIRES THE EVALUATION AND CERTIFICATION (PE EVAL/CERT) OF THE EXISTING SIDE SEWER BY A PROFESSIONAL ENGINEER PRIOR TO FINALIZING THE SIDE SEWER AND DRAINAGE PERMIT. IN MOST CASES, THE SIDE SEWER MUST BE LINED ALL THE WAY TO THE MAIN. SEE DIRECTORS RULE 4-2011.V.M AND SMC 21.16.240.
4. IN ORDER TO ADD UNITS TO AN EXISTING SIDE SEWER, A CERTIFIED LETTER STATING THE INTENT TO ADD UNITS TO THE SHARED SIDE SEWER MUST BE SENT TO ALL PROPERTY OWNERS OF PARCELS SERVED BY THE SHARED SIDE SEWER AT LEAST 30 DAYS PRIOR TO APPLYING FOR THE SIDE SEWER PERMIT. SMC 21.16.240.C. A RECEIPT OF CERTIFIED MAILING AND THE CERTIFICATION/ATTESTATION OF MAILING NOTIFICATION MUST BE SUBMITTED TO SDCI PRIOR TO PERMIT ISSUANCE.
5. DEVIATIONS FROM THE APPROVED DRAINAGE AND WASTEWATER CONTROL PLAN REQUIRE A FORMAL POST-SUBMITTAL REVISION FOR PLAN REVIEW AND APPROVAL. POST-SUBMITTAL REVISIONS MUST BE SUBMITTED ELECTRONICALLY THROUGH THE SDCI PROJECT PORTAL.

AS-BUILT MEASUREMENTS / NOTES

THIS SECTION IS TO BE COMPLETED AFTER THE DRAINAGE, WASTEWATER, AND SIDE SEWER FEATURES HAVE BEEN INSTALLED. FOR INSTRUCTIONS TO PREPARE THE AS-BUILT PLAN, SEE SDCI TIP #504.

SDCI SIDE SEWER AND DRAINAGE PERMIT # _____

MEASUREMENTS IN THE RIGHT-OF-WAY

1. DISTANCE FROM CENTERLINE OF DOWNSTREAM MH TO CENTERLINE OF NEW SERVICE CONNECTION _____
2. SIDE SEWER INTERSECTION WITH PROPERTY LINE – DEPTH _____
3. SIDE SEWER INSTERSECTION WITH PROPERTY LINE – DISTANCE _____

PIPE LINERS

☐ PIPE LINER INSTALLED ON PRIVATE PROPERTY
☐ PIPE LINER INSTALLED IN THE RIGHT-OF-WAY

NOTES FOR PLAN VIEW

ABBREVIATIONS

SSS	SANITARY SIDE SEWER
SD	STORM SERVICE DRAIN/ DRAINAGE SIDE SEWER
FD	FOOTING DRAIN PUBLIC
PSD	STORM DRAIN MAINLINE
PS	PUBLIC COMBINED MAINLINE
PSS	PUBLIC SANITARY SEWER MAINLINE

DRAINAGE AND WASTEWATER CONTROL PLAN

0 10' 20' — SCALE: 1" = 10' — NORTH ARROW

DPD APPROVAL STAMP

DETAILS: SELECT THE APPLICABLE DETAILS AND SHOW THEM HERE. PROVIDE AN ADDITIONAL SHEET IF NEEDED.

TEMPLATE VERSION: 2021-06-09

CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS

STANDARD DRAINAGE AND WASTEWATER CONTROL (DWC) PLAN
APPLICANT PLAN SET

SDCI PERMIT NO.: 6_____-CN
ADDRESS: ------ SEATTLE, WA
DESIGNED BY:
DRAWN BY:
CHECKED BY:

STANDARD DWC PLAN
SHEET DWC

SDCI TYPICAL DETAILS FOR COMMONLY USED BMPS

THE FOLLOWING ARE THE MOST COMMONLY USED DETAIL FOR SINGLE-FAMILY RESIDENTIAL AND PARCEL-BASED DEVELOPMENT PROJECTS. SELECT THE APPLICABLE DETAILS AND SHOW THEM HERE ON THE DWC PLAN OR AN ADDITIONAL SHEET FOR DETAILS. IF A DETAIL IS NOT PROVIDED BELOW, A CUSTOM DETAIL MUST BE CREATED BY THE DESIGNER BASED ON THE FIGURES AND DESIGN CRITERIA IN THE SEATTLE STORMWATER MANUAL AND/OR THE REQUIREMENTS FOR DESIGN AND CONSTRUCTION OF SIDE SEWERS (DRAINAGE AND WASTEWATER DISCHARGES).

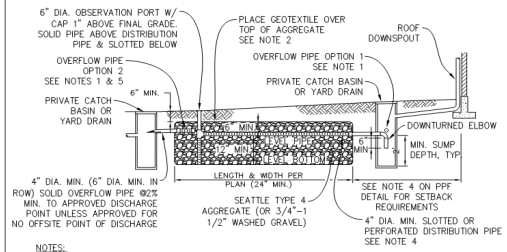
CATEGORY 1 OSM DETAILS

INFILTRATION TRENCHES AND DRYWELLS

INFILTRATION TRENCH

SYMBOL (TR)

MIN. MEASURED INFILTRATION RATE = 5"/HR

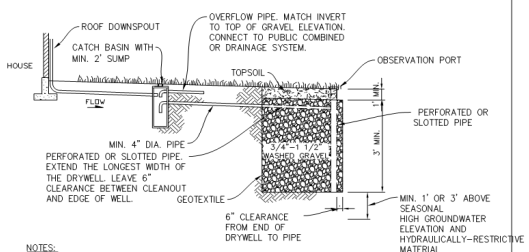


NOTES:
1. SET THE BOTTOM OF ALL OVERFLOW PIPES NO LOWER THAN THE TOP OF THE DISTRIBUTION PIPE. OPTION 1 SHALL BE A 4" DIA. (6" DIA. IN ROW) SOLID PIPE @2% MIN. TO APPROVED POINT OF DISCHARGE. OPTION 2 SHALL BE A 5' MIN. LENGTH, 4" DIA. SLOTTED PIPE @0% W/ CAPPED OPEN END PLACED IN AGGREGATE TRENCH. CONNECT TO 4" DIA. (6" DIA. IN ROW) SOLID PIPE @2% MIN. TO PRIVATE CATCH BASIN & THEN TO APPROVED POINT OF DISCHARGE.
2. SCARIFY SUBGRADE TO 4" MIN. DEPTH BEFORE FILLING TRENCH W/ GRAVEL.
3. SEE SEATTLE STORMWATER MANUAL VOL 3, SEC 5.4.2, FOR SIZING, MATERIALS & CONSTRUCTION REQUIREMENTS.
4. SEE SEATTLE STD PLAN NO. 291 FOR SLOT CONFIGURATION.

DRYWELL

SYMBOL (TR)

MIN. MEASURED INFILTRATION RATE = 5"/HR



NOTES:
1. SET THE BOTTOM OF ALL OVERFLOW PIPES NO LOWER THAN THE TOP OF THE DISTRIBUTION PIPE. OPTION 1 SHALL BE A 4" DIA. (6" DIA. IN ROW) SOLID PIPE @2% MIN. TO APPROVED POINT OF DISCHARGE. OPTION 2 SHALL BE A 5' MIN. LENGTH, 4" DIA. SLOTTED PIPE @0% W/ CAPPED OPEN END PLACED IN AGGREGATE TRENCH. CONNECT TO 4" DIA. (6" DIA. IN ROW) SOLID PIPE @2% MIN. TO PRIVATE CATCH BASIN & THEN TO APPROVED POINT OF DISCHARGE.
2. SCARIFY SUBGRADE TO 4" MIN. DEPTH BEFORE FILLING TRENCH W/ GRAVEL.
3. SEE SEATTLE STORMWATER MANUAL VOL 3, SEC 5.4.3, FOR SIZING, MATERIALS & CONSTRUCTION REQUIREMENTS.
4. SEE SEATTLE STD PLAN NO. 291 FOR SLOT CONFIGURATION.

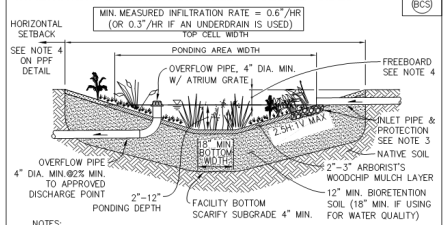
CATEGORY 2 OSM DETAILS

INFILTRATING BIORETENTION

INFILTRATING BIORETENTION CELL – SLOPED SIDES

SYMBOL (BCS)

MIN. MEASURED INFILTRATION RATE = 0.6"/HR (OR 0.3"/HR IF AN UNDERDRAIN IS USED)

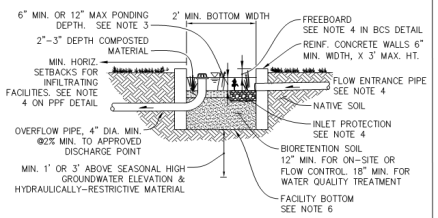


NOTES:
1. SHOW BOTTOM & TOP CELL DIMENSIONS ON PLAN VIEW BELOW.
2. SHOW PONDING DEPTH & FREEBOARD PLAN VIEW BELOW.
3. FLOWS MUST ENTER THE CELL ABOVE THE MULCH LAYER. PROVIDE ENERGY DISSIPATION SUCH AS A SPLASH BLOCK OR ROCK PAD FOR CONCENTRATED FLOW.
4. MINIMUM FREEBOARD SHALL BE 2" FOR CONTRIBUTING DRAINAGE AREAS LESS THAN 3,000 SF, 4" FOR AREAS 3,000 SF TO 5,000 SF & 6" FOR AREAS GREATER THAN 5,000 SF. SHOW FREEBOARD ON THE PLAN VIEW BELOW.
5. SEE SEATTLE STORMWATER MANUAL VOL. 3, SEC. 5.4.4, FOR ADDITIONAL REQUIREMENTS.

INFILTRATING BIORETENTION CELL – VERTICAL SIDES

SYMBOL (BCV)

MIN. MEASURED INFILTRATION RATE = 0.6"/HR (OR 0.3"/HR IF AN UNDERDRAIN IS USED)

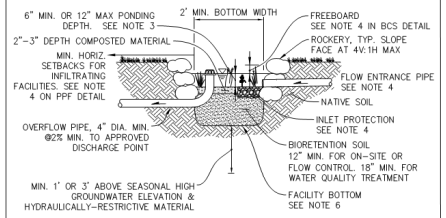


NOTES:
1. BOTTOM & TOP CELL DIMENSIONS MUST BE SHOWN ON DRAINAGE CONTROL PLAN.
2. PONDING DEPTH & FREEBOARD SHALL BE NOTED ON THE DRAINAGE CONTROL PLAN.
3. 6" TO 12" PONDING DEPTH MAY BE REDUCED TO 2" IF SUPPORTED BY CONTINUOUS STORMWATER MODELING.
4. FLOWS MUST ENTER THE CELL ABOVE THE MULCH LAYER. PROVIDE ENERGY DISSIPATION SUCH AS A SPLASH BLOCK OR ROCK PAD FOR CONCENTRATED FLOW.
5. SEE SEATTLE STORMWATER MANUAL VOL. 3, SEC. 5.4.4 FOR ADDITIONAL REQUIREMENTS.
6. SCARIFY SUBGRADE 4" MIN. BEFORE BIORETENTION SOIL INSTALLATION.

INFILTRATING BIORETENTION CELL – ROCKERY SIDES

SYMBOL (BCR)

MIN. MEASURED INFILTRATION RATE = 0.6"/HR (OR 0.3"/HR IF AN UNDERDRAIN IS USED)



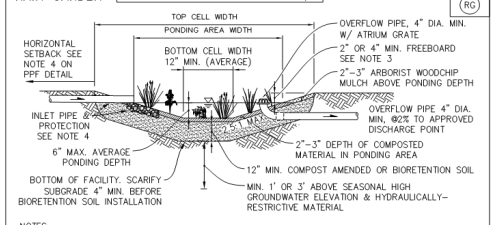
NOTES:
1. BOTTOM & TOP CELL DIMENSIONS MUST BE SHOWN ON DRAINAGE CONTROL PLAN.
2. PONDING DEPTH & FREEBOARD SHALL BE NOTED ON THE DRAINAGE CONTROL PLAN.
3. 6" TO 12" PONDING DEPTH MAY BE REDUCED TO 2" IF SUPPORTED BY CONTINUOUS STORMWATER MODELING.
4. FLOWS MUST ENTER THE CELL ABOVE THE MULCH LAYER. PROVIDE ENERGY DISSIPATION SUCH AS A SPLASH BLOCK OR ROCK PAD FOR CONCENTRATED FLOW.
5. SEE SEATTLE STORMWATER MANUAL VOL. 3, SEC. 5.4.4 FOR ADDITIONAL REQUIREMENTS.
6. SCARIFY SUBGRADE 4" MIN. BEFORE BIORETENTION SOIL INSTALLATION.

RAIN GARDENS

RAIN GARDEN

SYMBOL (RG)

MIN. MEASURED INFILTRATION RATE = 0.3"/HR

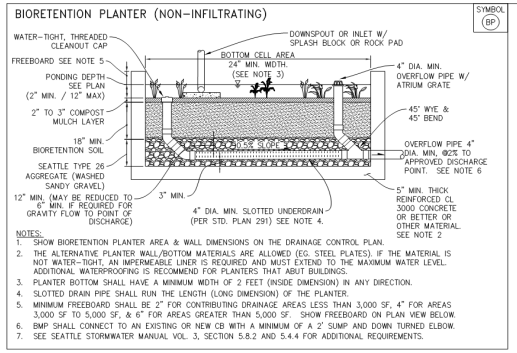


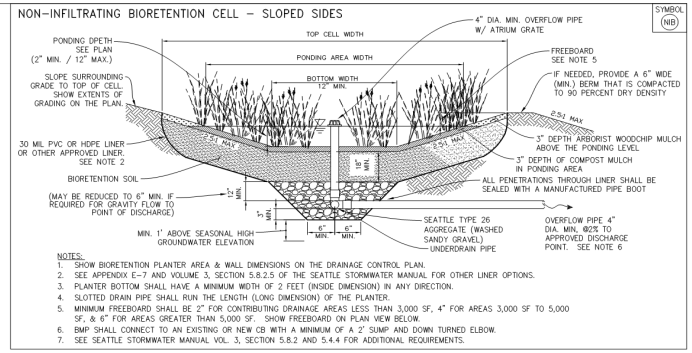
NOTES:
1. BOTTOM & TOP CELL DIMENSIONS MUST BE SHOWN ON DRAINAGE CONTROL PLAN.
2. PONDING DEPTH & FREEBOARD SHALL BE NOTED ON THE DRAINAGE CONTROL PLAN.
3. MIN. FREEBOARD SHALL BE 2" FOR CONTRIBUTING DRAINAGE AREAS LESS THAN 3,000 SF & 4" FOR AREAS 3,000 SF TO 5,000 SF. NOTE THE FREEBOARD ON THE DRAINAGE CONTROL PLAN.
4. FLOWS MUST ENTER THE CELL ABOVE THE MULCH LAYER. PROVIDE ENERGY DISSIPATION SUCH AS A SPLASH BLOCK OR ROCK PAD FOR CONCENTRATED FLOW.
5. SEE SEATTLE STORMWATER MANUAL VOL. 3, SECTION 5.4.5, FOR ADDITIONAL REQUIREMENTS.

PERMEABLE PAVEMENT

CATEGORY 4 OSM DETAILS

NON-INFILTRATING BIORETENTION

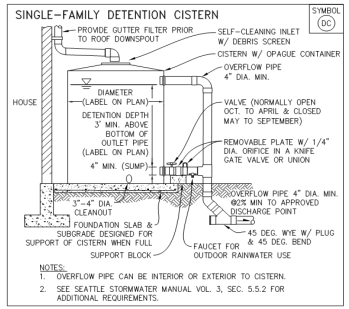




VEGETATED ROOF

CATEGORY 5 OSM DETAILS

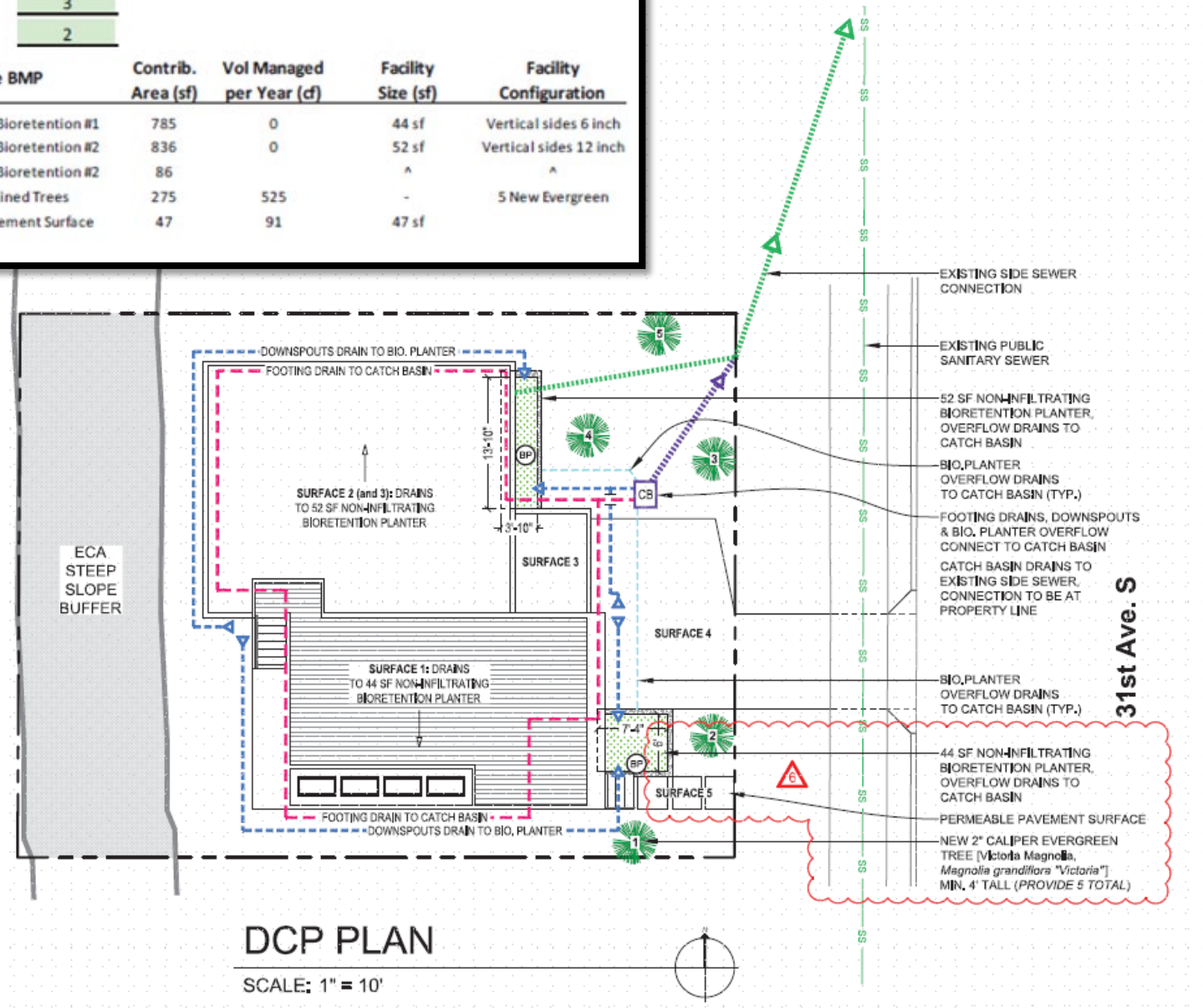
MISCELLANEOUS



On-site Stormwater Management

Number of roof areas	3
Number of other surface areas	2

Surface	Surfaces Description	On-site BMP	Contrib. Area (sf)	Vol Managed per Year (cf)	Facility Size (sf)	Facility Configuration
1	Roof:Roof Deck 2	Non-Infiltrating Bioretention #1	785	0	44 sf	Vertical sides 6 inch
2	Roof:Roof over Living,	Non-Infiltrating Bioretention #2	836	0	52 sf	Vertical sides 12 inch
3	Roof:Uncovered porti	Non-Infiltrating Bioretention #2	86		^	^
4	Surface:Driveway	New or Retained Trees	275	525	-	5 New Evergreen
5	Surface:Walkway	Permeable Pavement Surface	47	91	47 sf	



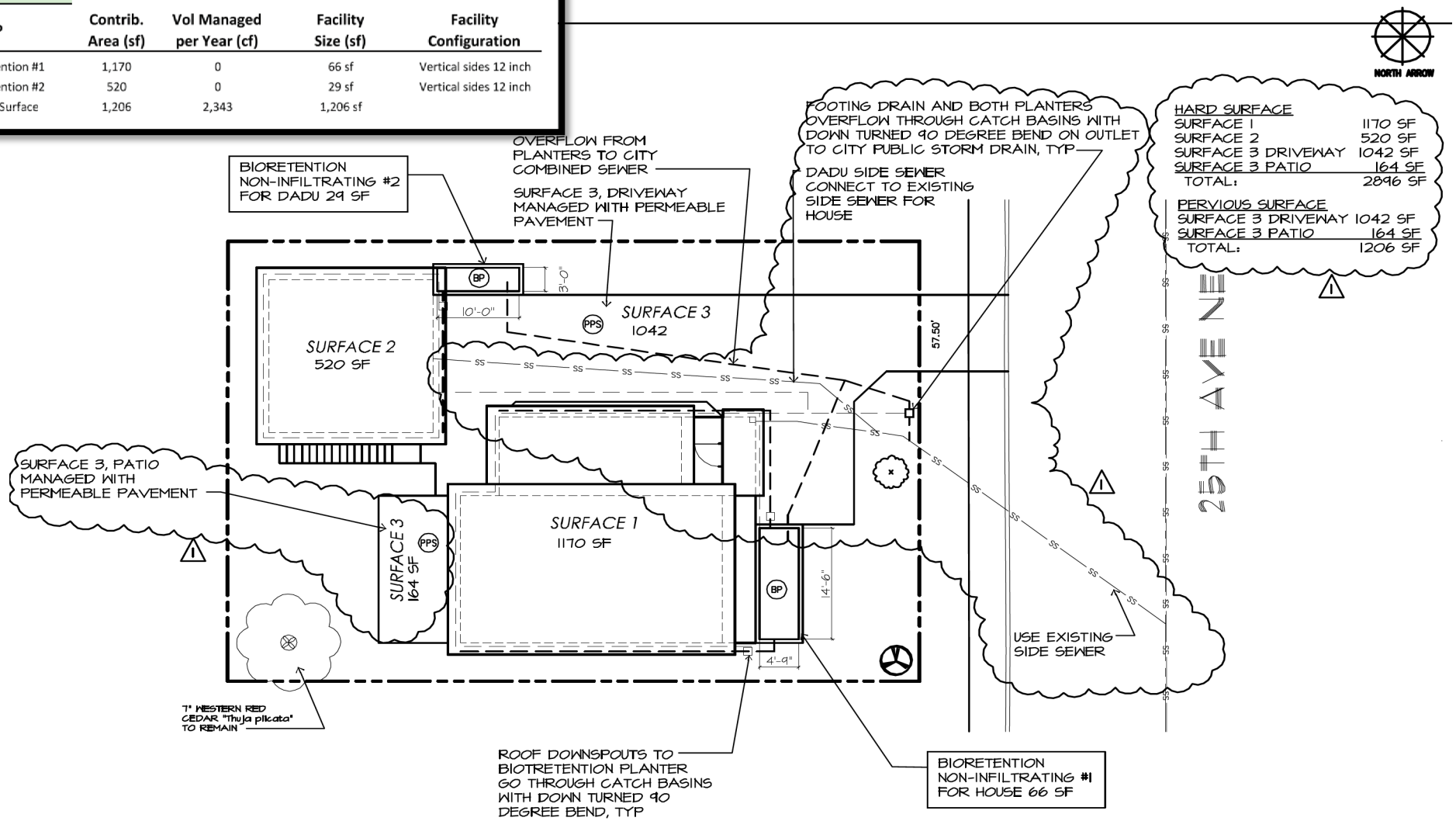
DCP PLAN

SCALE: 1" = 10'

On-site Stormwater Management

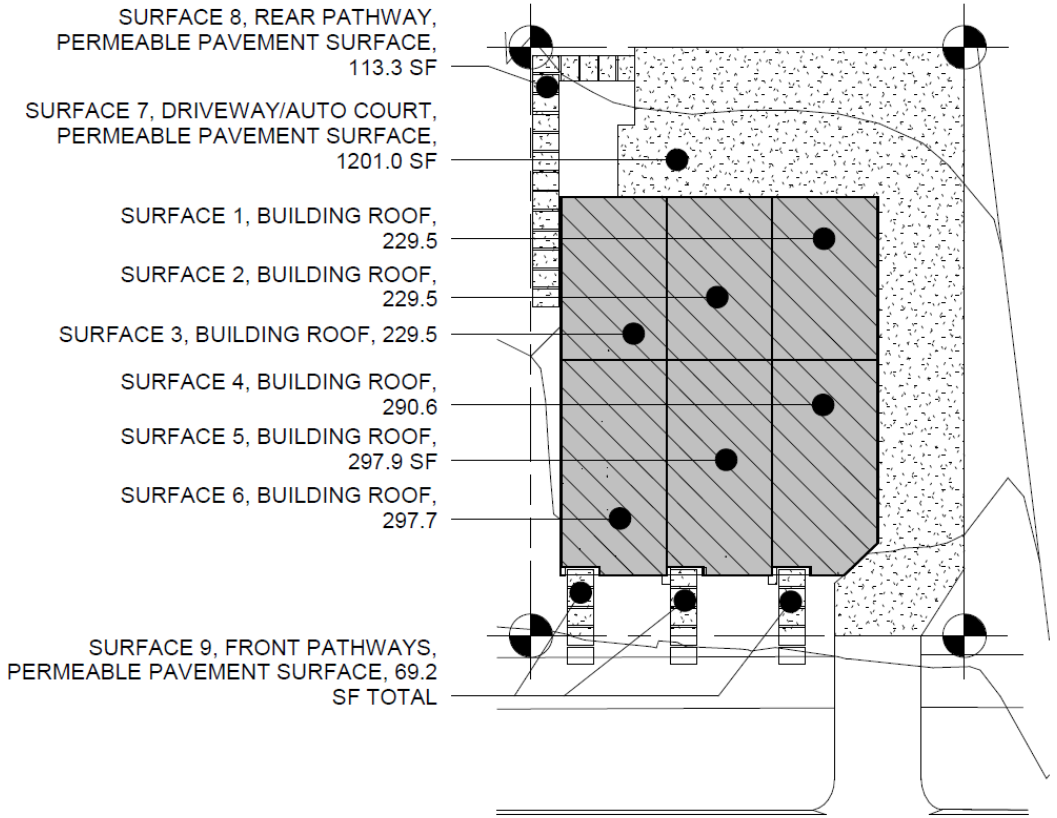
Number of roof areas	2
Number of other surface areas	1

Surface	Surfaces Description	On-Site BMP	Contrib. Area (sf)	Vol Managed per Year (cf)	Facility Size (sf)	Facility Configuration
1	Roof:All roof slopes will	Non-Infiltrating Bioretention #1	1,170	0	66 sf	Vertical sides 12 inch
2	Roof:Roof of DADU all	Non-Infiltrating Bioretention #2	520	0	29 sf	Vertical sides 12 inch
3	Surface:Driveway	Permeable Pavement Surface	1,206	2,343	1,206 sf	



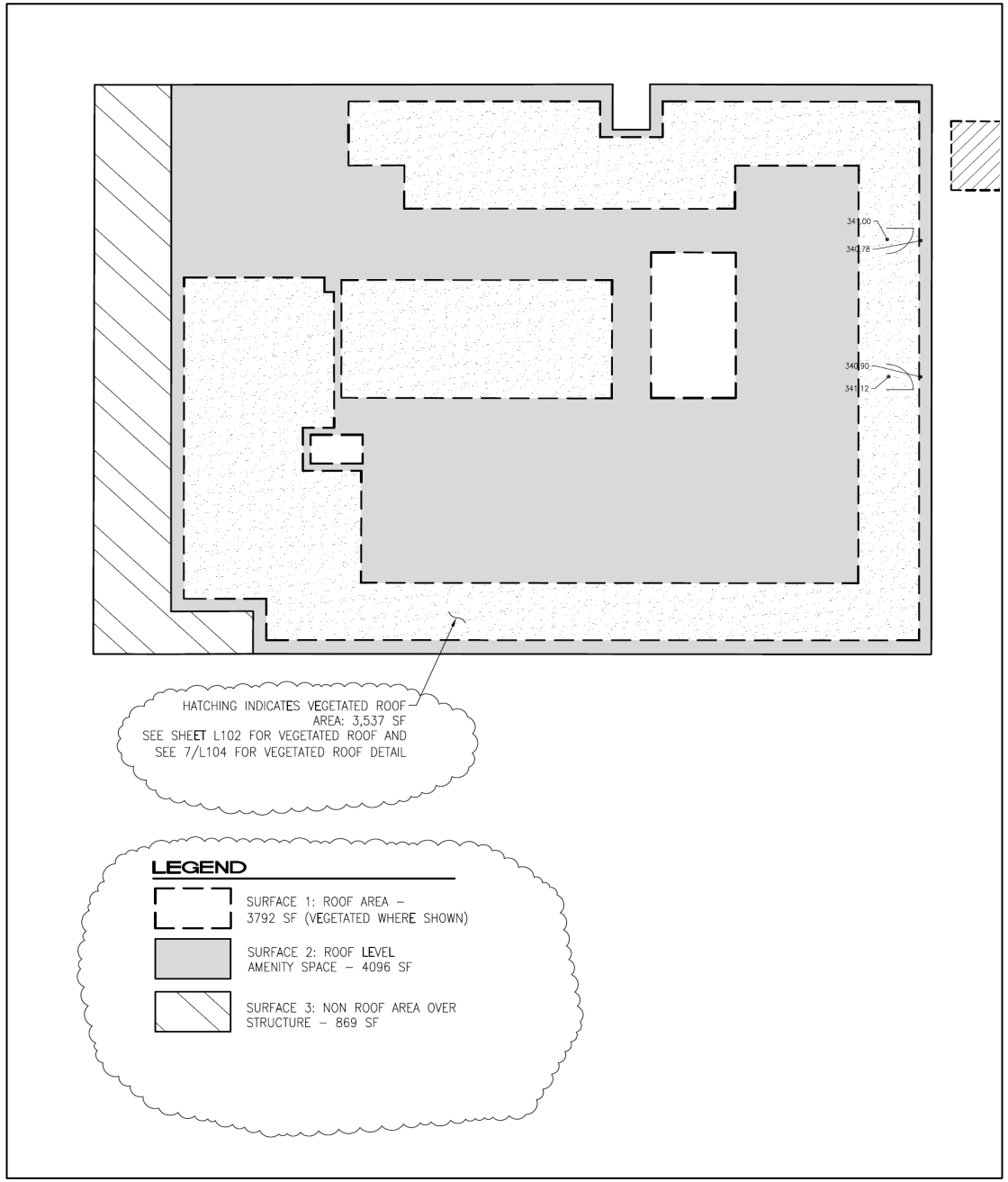
THE CITY OF SEATTLE
DEPARTMENT OF CONSTRUCTION AND INSPECTIONS
APPROVED
Subject to Errors and Omissions
04/04/2016

EXAMPLE KEY PLAN



1 **SITE PLAN DWC SURFACES**

SCALE: 1" = 20'-0"


341.00
340.78
340.90
341.12
HATCHING INDICATES VEGETATED ROOF
AREA: 3,537 SF
SEE SHEET L102 FOR VEGETATED ROOF AND
SEE 7/L104 FOR VEGETATED ROOF DETAIL
LEGEND
SURFACE 1: ROOF AREA –
3792 SF (VEGETATED WHERE SHOWN)
SURFACE 2: ROOF LEVEL
AMENITY SPACE – 4096 SF
SURFACE 3: NON ROOF AREA OVER
STRUCTURE – 869 SF

QUESTIONS?

SideSewerInfo@seattle.gov

206-684-5362

SDCI will be hosting regular live Q&A sessions throughout July and August. Please see the SDCI Stormwater Code page for more information and dates.