

# County of Los Angeles - Department of Public Works

**Building and Safety/Land Development Division** 

## LOW IMPACT DEVELOPMENT REVIEW SHEET

(2017 Los Angeles County Building Code, Residential Code, and Green Building Standards Code)

PLAN CHECK:	0	DISTRIC	T No:	0.00
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All development must comply with the County of Los Angeles' Title 12, Chapter 12.84 (LID).

LID standards are intended to distribute stormwater and urban runoff across developed sites to help reduce adverse water quality impacts and replenish groundwater supplies. The County of Los Angeles, LID Manual 2014 is available at the following link: http://dpw.lacounty.gov/ldd/web/

Under the County of Los Angeles LID Ordinance, Title 12, Section 12.84.430, designated projects are required to prohibit the discharge of pollutants from property developments. Preventing these pollutants from entering stormwater discharge system will be accomplished by requiring the installation and maintenance of post-construction treatment controls. (Best Management Practices (BMPs)

LID Requirement (Priority and Non-Priority Projects):

Date of Maintenance	Agreement:		
Proposed Impervious	s Area:		sq. ft.
Design Storm: (chec		85th percentile	0.75-inch
SWQDv:	ft <sup>3</sup>		% to retain onsite
LID Solution: (check	box)	Infiltration	Biofiltration

### **RESIDENTIAL DEVELOPMENTS of 4 units or less:**

New development, hillside development, redevelopment, alterations, or additions which alter 50% or more of impervious surfaces, entire site shall meet LID requirements.

Section Response:

- 1. Residential development of 4 units or less must implement a minimum of two LID Best Management Practice (BMP) alternatives as indicated in Section 3.2 and Appendix E Stormwater Quality Control Measure Fact Sheets of the LID Manual. Plans must show complete construction details, materials, manufacturer, model number, dimensions, location, structures, slopes, construction notes, specifications, cross sections, elevations, and setbacks from property lines needed to construct proposed LID BMPs. BMPs should be designed so as not to adversely impact building foundations, pavement, slope stability, or an adjacent property. For hillside properties all catch basins and inlets that discharge into an existing or proposed storm drains must be labeled to discourage illegal dumping of pollutants. Stencils are available at your local Building and Safety office.
  - a.
     Permeable Porous Pavement or other impervious surfaces (at least 50% of pavement on lot shall be porous)
    - Show detail of placement, base, geotextile, subgrade, and soil preparation per manufacturer's specifications.
    - The required soils report must address percolation and manufacturer's recommendations and quidelines.
    - H-20 loading is required for Fire Department access.
    - A minimum of 30" deep impervious liner or edge restraint is required within 5' of public right of way, property lines, and structures unless otherwise recommended by a soils engineer.
  - b. Downspout routing

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#### Cistern/rain barrel

- Show location of cistern/rain barrels. Rain barrels should be designed to store 200 gallons and be located such that roof run-off is equally distributed. Rain gutters & downspouts shall be shown on plans.
- Plans shall show hose bibs or pump systems for discharge and watering of landscaping. (Note: A separate electrical permit is required for pump systems).
- A plumbing permit is required for backflow prevention devices when the discharge system is tied into a landscaping irrigation system served by a potable water source.
- H-20 loading is required for underground cisterns located in an area subject to traffic conditions.
- Plans should include manufacturer specifications and notes for rain barrels. See provided guidelines.

o Rain garden/Stormwater Planter

- Surface area of flow through type planter box shall be designed and sized to treat 200 gallons. Planter must have a 18" minimum top soil layer and 12" minimum gravel layer.
- The infiltration type planter box shall be designed to infiltrate 200 gallons over a 48 hour period.
- c. Divert Runoff/Disconnect Impervious Surfaces (Hillsides > 25% slope must comply with this requirement)(NPDES)
  - Show driveway, roof, and other impervious surfaces to drain toward pervious landscaped areas. The ratio of impervious to pervious area shall be no less than 2:1. This ratio must be identified on plans for each affected area. A minimum of 90% of the untreated impervious area shall be routed toward vegetated areas or water quality BMPs.

d.

## Dry well

- Show details including the following: location, cross section details, liner materials, subbase, and all manufacturer's specifications and/or recommendations from soils engineer.
- The required soils report shall address dry well and manufacturer's specification and requirements.
- The system should be designed to store and infiltrate a minimum of 200 gallons of stormwater within a48 hour period.
- Provide calculations to determine the infiltration volume for sizing of well and determine time of infiltration to percolate 200 gallons.
- A filter or sediment control is required to filter water entering the dry well.
- Drywells that are deeper than their widest dimension are defined by the EPA as Class V injection wells, and are subject to inventory requirements under the Safe Drinking Water Act and must be registered at the following link with the EPA as injection wells.

http://www.epa.gov/region09/water/groundwater/injection-wells-register.html. If this type of dry well is proposed, provide copy of registration.

<ul> <li>e. Landscaping and landscape irrigation</li> <li>• Show a minimum of two 15 gallon trees to be planted and maintained. Trees shall be located near impervious surfaces (10 foot maximum distance). One of the trees may be on the drought-tolerant plant list as required under the County's Green Building Ordinance (<a href="http://planning.lacounty.gov/assets/upl/project/green_drought-tolerant-garden.pdf">http://planning.lacounty.gov/assets/upl/project/green_drought-tolerant-garden.pdf</a>). In Very High Fire Hazard Severity Zones, applicant should verify compliance with Fire Department's requirements.  <ul> <li>□ Install Smart Irrigation Controllers.</li> <li>f.</li> </ul> </li> </ul>				
<ul> <li>Green Roof</li> <li>Show area of green roof on site plan.</li> <li>Structural calculations for design of green roof will be required at time of building plan submittal.</li> <li>Fire Department approval will be required as part of building plan check.</li> </ul>				
4. For LID compliance, all catch basins and inlets that discharge into an existing or proposed storm drain must be labeled to discourage illegal dumping of pollutants. Stencils are available at your local Building and Safety office.				
5. All infiltration basins, dry wells, or planters must comply with the following setbacks				
Infiltration Facility Setbacks*				
Setback from Distance in feet  Property lines & Public Right of Way 5' minimum				
Any Foundation 15' or within a 1:1 plane drawn up from the bottom of foundation				
Face of any slope H/2, 5' minimum (H is height of slope)*  Seasonal high ground water 10' minimum depth to invert				
Water wells 100' minimum				
Required Infiltration Time (due to vector control)				
BMP Type Duration Open above ground (includes planting soil or open gravel pit) 48 hours to drain completely				
Underground retention 96 hours to drain completely				
*unless otherwise recommended by a Soils Engineer and approved by Geotechnical and Materials Engineering Division.				
Note: Infiltration is not allowed in areas where pollutant mobilization is a documented concern, or where undisturbed soil infiltration rates are less than 0.3 inches per hour, or where infiltration could cause adverse impacts to biological resources.				
6. An Infiltration Report by a Soils Engineer and the grading plans must be reviewed and recommended for approval by the Geology and Soils Section prior to approval of an Infiltration/Retention - Low Impact Development (LID) BMP. The Infiltration Report must comply with GMED Geotechnical Memo GS 200.1 and should be presented as its own report. All recommendations and notes as indicated in the soils engineering report and/or GMED review sheets must be incorporated into the grading plans. The GS 200.1 memo can be found at: http://dpw.lacounty.gov/gmed/permits/docs/policies/GS200.1.pdf				
7. Rainwater harvest and reuse systems that are NOT gravity fed require approval from LA County Public Health, Cross Connection & Water Pollution Control Program. The application and further information is found at <a href="http://publichealth.lacounty.gov/eh/EP/cross_con/cross_con_main.htm">http://publichealth.lacounty.gov/eh/EP/cross_con/cross_con_main.htm</a> . In addition, approval from LA County, Building and Safety Plumbing Section is required. Rainwater harvest design and plans must comply with County of Los Angeles, Plumbing Code, Chapter 16 – Non-Potable Rainwater Catchment Systems.				
8. Different types of infiltration facilities such as dry wells, unlined sumps, seepage pits, and infiltration galleries are some of the terms used to describe Class V injection wells as defined by the EPA. Register the proposed infiltration facility at the following online registration form: <a href="http://www.epa.gov/uic/forms/underground-injection-wells-registration">http://www.epa.gov/uic/forms/underground-injection-wells-registration</a> .				

9. A recorded covenant indicating that the owner of the subject development is aware and agrees to maintain all stormwater BMP features for this project is required. The covenant shall include operation and maintenance guidelines prepared by the project civil engineer/architect. See attached LID Covenant Preparation and Recordation instructions. A draft copy of the covenant including all exhibits must be reviewed prior to recordation.			
Plan Checker:	0	Email: 0	
Phone Number:	-	Date:	