APPENDIX D

ALL OTHER DEVELOPMENT PLAN CHECK FORMS

Appendix D provides blank forms and checklist(s) that the project applicant can use for submittal to the Watershed Protection Division of the City of Los Angeles as part of theproject approval process. The following is a list of the attached forms:

BLANK FORMS

- LID CHECK LIST/PLAN CHECK CORRECTION SHEET
- COVENANT & AGREEMENT (C&A)
- STORMWATER OBSERVATION REPORT (SOR)
- STORMWATER BMP VERIFICATION FORM



LOW IMPACT DEVELOPMENT (LID) CHECKLIST ALL OTHER DEVELOPMENT PROJETCS



Fee: Fee: Fee:	Regular \$ 721 (QC 721) \$ 824 (QC 714) \$ 1,030 (QC 715)	Expedite (add) \$357 (QC 719) = \$ 1,081.50 \$408 (QC 717) = \$ 1,236 \$510 (QC 718) = \$ 1,545	
Other Includ	: les 3% surcharge fee		

You	ur WPD Project Plan Checker:				
	Counter: 213-482-7066 Office: 213-485-				
РС	IS#				
	e following is a list of outstanding items that are required in order for the project to be approved the WPD for compliance with the stormwater runoff requirements:				
	Complete the Project Summary Clearance Form (Reverse side).				
	Provide treatment train BMP to pre-treat and infiltrate/retain/reuse the first \square 0.75-inch \square 85 th percentile rain event as required by the City of Los Angeles' LID Ordinance and the Regional Board NPDES permit.				
	Provide soil report addressing infiltration feasibility (include percolation test). Obtain approval from Buildin and Safety, Grading Division on the location of the proposed infiltration system, and include a copy of approve on plans.				
	Provide Hydrology Calculation to determine the volume (Vm) and/or flow rate (Qpm) of mitigated Stormwater runoff for each treatment system of a sub-drainage area. Show selected BMP type and size.				
	Obtain infiltration approval from the Upper Los Angeles Watermaster.				
	Obtain stormwater use approval from County of Los Angeles, Department of Public Health.				
	Stencil at all drainage inlets (i.e. catch basins, trench drains). Stencil requirements shall be noted on plans .				
	Submit completed Covenant & Agreement (C&A) Form with Operation and Maintenance (O&M) Plan for approval and signature prior to County recordation. Provide 8.5"x11" Plot Plan showing location and size of each BMP(s). Supplemental (Revision) C&A. Terminate old C&A.				
	Submit letter of authority for the individual(s) signing the Covenant and Agreement (original copy).				
	Provide one (1) set of full size plans for first time review; three (3) sets at the final SIGNOFF, with Engineer's and Architect's wet stamp and signature.				
	Return marked up plans and large scale plan check correction sheet with resubmittal.				
	Others:				

For additional information: www.lacitysan.org/lid

Project Summary Clearance Form

Permit Application #		BMP4 - Type	
Development Type:	Redevelopment ? (Y N) / Liquefaction ? (Y N)	BMP4 - Quantity	
	ESA? (Y N) / Hillside Grading Area? (Y N)	BMP4 - Size	
APN#		Contact Person	
Development Address		Phone #	
Zip Code		Email	
Watershed (Circle one)	Ballona - LA River - Dominguez Channel - Harbor - Santa Monica Bay	Ow ner	
Development Impervious Area (Acre)		Ow ner Phone #	
Development Pervious Area (Acre)		Date Submitted	/ /
V _m	FT3 OrGal.	WPD Staff	
Qpm (cfs)		Office (circle one)	Figueroa - Van Nuys - West LA - Harbor
BMP1 - Type			
BMP1 - Quantity			
BMP1 - Size			
BMP2 - Type		List All Other	
BMP2 - Quantity		Permit Applications Requiring Stormw ater	
BMP2 - Size		Clearance:	
BMP3 - Type			
BMP3 - Quantity			
BMP3 - Size			

STORMWATER MITIGATION LOW IMPACT DEVELOPMENT (LID)







Large Scale Plan Check Corrections Sheet

Plan Check Submittal Date:		
Permit App.#:		
Job Address:		Development Type:
Applicant:		Phone: ()
Applicant email:		
P.C. Engineer:		Phone: ()
E-mail:	@lacity.org	

INSTRUCTIONS FOR PROCEEDING WITH THE PLAN CHECK (PC) PROCESS:

- 1. Review corrections circled on this Plan Check Correction Sheet.
- Provide a written response or reference to plans and details pursuant to the corrections. Location of any revisions on the plans shall be identified as part of your responses. For any questions related to the PC corrections, email or call the Plan Check Engineer.
- Complete item #2 above and submit the originally checked set of plans, report, and calculations to the counter along
 with this plan correction sheets. Unprepared responses with incomplete plans or calculations may result in plan
 check delays.
- 4. Once all the items have been corrected a Covenant and Agreement will be prepared for final approval. Upon providing a certified copy and 3 sets of plans, a clearance will be issued.

PART I: LID REPORT

Provide Low Impact Development (LID) report which includes the following:

A. PROJECT BACKGROUND

- i. Name of Project and Developer
- ii. Introduction and Project description
- iii. Scope of work (identify if the project is comprised of multiple lots).
- iv. Proposed site drainage:
 - a. Breakdown of entire site pervious and impervious
 - b. Breakdown by tributary area of pervious and impervious area.

B. HYDROLOGY CALCULATIONS

- i. Project design storm volume must be based on:
- a. 0.75-inch rain event;
- b. 85th percentile, 24-hour runoff event, as determined from the Los Angeles County 85th percentile precipitation isohyetal map (inch).
 http://dpw.lacounty.gov/wrd/hydrologygis/

- Provide Hydrology calculation (Q & Vm) for the entire project site using LA County HydroCalc Calculator.
 - (http://dpw.lacounty.gov/wmd/dsp LowImpactDeve lopment.cfm)
- iii. Provide design storm volume calculation for each proposed tributary area.
- **C.** <u>TECHNIAL FEASABILITY SCREENING:</u> Discussion on feasibility screening justifications:

INFILTRATION

- Discuss infiltration feasibility (LID Handbook Table 4.1).
- ii. Provide Soil Engineer's report/recommendation.
- iii. Provide percolation test and infiltration rate. Refer to LID Handbook for approved test methods.
- iv. Obtain and provide approval letter from Building and Safety Grading Department (refer to LADBS Informational Bulletin P/BC 2014-118).
- v. Project is located within the Upper Los Angeles River Watershed area. Obtain and provide approval from the Upper Los Angeles River Area Watermaster. Refer to LID Handbook, Appendix J and http://ularawatermaster.com/

STORMWATER MITIGATION LOW IMPACT DEVELOPMENT (LID)

Large Scale Plan Check Corrections Sheet

vi. Register dry well with EPA and provide registration confirmation #.

https://www.epa.gov/uic/forms/underground-injection-wells-registration

CAPTURE & USE

- i. Provide calculations showing water irrigation demand, Estimated Total Water Usage during the wet weather season (Oct 1st to Apr 30th),. At a minimum, only include landscaping within project limits. If preferred, all available landscaping can be used (refer to LID Handbook, Appendix F).
- Discuss capture and use feasibility, ETWU_{7-month} ≥ Vm.
- iii. Obtain and provide approval letter from Los Angeles County Health Department. Refer to LID Handbook, Appendix K and

http://www.publichealth.lacounty.gov/eh/EP/cross con/cross con recycle.htm

HIGH EFFICIENCY BIOFILTRATION

- Discuss location and design parameters (ponding depth, time to fill, etc.) used for each biofiltration device.
- If certain areas will not be treated, quantify and explain how it will be compensated in a different tributary area.

D. CONCLUSION

- i. Provide summary table which includes:
- Each tributary area (total must match entire project area).
- b. Calculated volume for each area.
- c. Proposed BMP.
- d. Required size of proposed BMP.
- e. Provided size of BMP.
- ii. If certain areas will not be treated, quantify and explain how it will be compensated in a different tributary area.
- Overall percent of design storm volume being mitigated on-site.

PART II: LID PLANS

LOW IMPACT DEVELOPMENT (LID) PLAN: Stormwater mitigation implementation strategy/plan based on feasibility screening justifications. Plans must be submitted on min 24" x36".

A. Provide Architectural Plans

- i. Site Plan showing the following:
 - a. Identify all impervious & pervious surface areas.
 - b. Location of BMPs.
 - c. Size and dimensions.
 - d. Reference to detail(s).
 - e. Identify and Label outdoor trash enclosure areas.
 - Provide detail on plans.
 - Must be walled to prevent off-site transport of trash.
 - Trash Enclosures must be covered and drain runoff away from area.
 - All trash bins shall be covered. Provide the following note on plans: "All trash bins shall be covered."

B. Provide **Architectural Elevation Plan(s)** showing the following:

- i. BMP(s) location (call out, dimension, and reference detail(s)).
- ii. Downspout(s) discharging into BMPs.
- iii. Provide the following note on plans:"All downspouts to drain to <u>(proposed BMP)</u>.See <u>(reference sheets)</u>."

C. Provide Architectural Roof Plan(s)

i. Provide the following note on plans:
 "All roof runoff to drain to <u>(proposed BMP)</u>.
 See (reference sheets)."

D. Provide Civil / Grading Plans

- Provide fine grading plan which includes all inlets, slopes, invert elevations showing how runoff is diverted into BMPs and how overflow systems are directed to street.
- ii. Location of BMPs.
- iii. Size and dimensions.
- iv. Provide / Reference BMP details.
- v. Provide pretreatment system (sedimentation basin, filter insert, etc.).
- vi. Provide label with "No Dumping Drains to Ocean" at all drainage inlets (i.e. catch basins, trench drains).
- vii. Provide summary BMP table from LID Report on plans.
- viii. Provide the following note on plans: "All slopes to be vegetated."

STORMWATER MITIGATION LOW IMPACT DEVELOPMENT (LID)

Large Scale Plan Check Corrections Sheet

Infiltration BMPs

- i. Provide finish elevations for the following:
 - a. Top and bottom of infiltration BMP(s).
 - b. Overflow.
- ii. Provide Upper LA Water Master Approval letter on plans.

Capture & Use BMPs

- i. Clearly show proposed BMP and landscape area served by BMP.
- ii. Show point of connection to drip Irrigation system.
- iii. Provide reference to Landscape Plan.
- Rainwater harvesting system includes distribution pump and/or supplemental domestic water supply.
 Obtain and provide LA County Department of Public Health Approval letter on plans.
 - a. Add Following note to Civil, Landscape and Plumbing plans:
 - i. "Refer to Los Angeles County Department of Public Health Plan Review Report for installation of rainwater catchment and irrigation system."

High Efficiency Biofiltration BMPs

- i. Provide finish elevations showing top and bottom of planters to verify depth.
- Provide grade elevations for: Inlet and outlet pipes,
 Biofiltration finish grade, overflow outlets, and top of wall, if any.

E. Provide Mechanical Plans (Riser Diagram)

- Provide riser diagram and routing to each BMP.
 Include all downspouts and area drains.
- F. Provide Landscape Plans
 - i. Location of BMP (refer to civil plan).
 - ii. Connection to drip irrigation system.
 - iii. Landscaped area which will use stormwater as irrigation.

- **G.** Fill out top portion and provide Stormwater Observation Report Form on plans.

 www.lastormwater.org/green-la/low-impact
 - www.lastormwater.org/green-la/low-impactdevelopment/lid-documents/
- H. Fill out and provide Stormwater BMP Verification Summary Sheet Form on plans. www.lastormwater.org/green-la/low-impactdevelopment/lid-documents/
- I. Add following note to Plans:
 - Any changes (type, size, location) to approved stormwater Best Management Practice(s) (BMPs) must obtain written approval from Los Angeles, Department of Public Works, Bureau of Sanitation prior to construction of BMP(s).
- J. Obtain Code Modification from Building and Safety for:
- K. Final approved set must be stamped by the Engineer(s) of records (Civil, Mechanical and Soils), and the project architect.

PART III: SITE SPECIFIC PLANS

(Refer to Appendix G – Source Control Measures) Plans shall incorporate design criteria for:

- □ Outdoor Material Storage Areas (S-2)
- □ Outdoor Trash Storage Areas (S-3)
- □ Outdoor Loading/Unloading Dock Areas (S-4)
- □ Outdoor Repair/Maintenance Bay Areas (S-5)
- Outdoor Vehicle /Equipment/Accessory Washing Areas (S-6)
- ☐ Fueling Areas (S-7)

L. ADDITIONAL CORRECTIONS

ADDITIONAL CORRECTIONS:		

INSTRUCTIONS FOR FILING COVENANT AND AGREEMENT FORMS

- 1. Provide 8.5" x 11" Plot Plan showing location and size of all stormwater Best Management Practices (BMPs) Exhibit 1.
- 2. Fill out, in BLACK INK ONLY, one copy of the Covenant and Agreement Form.
- 3. Property owner(s) must print and sign their name(s) SIGNATURE(S) MUST BE NOTARIZED.
- 4. Submit the completed Covenant & Agreement (C&A) Form to Bureau of Sanitation for review. Upon approval, Bureau of Sanitation will provide Operation and Maintenance (O&M) Plan(s) and sign the Covenant and Agreement.
- 5. Record the C&A Form and the O&M Plan with the Los Angeles County Registrar-Recorder and obtain a <u>certified</u> copy. County Recorder located at:
 - 1) 12400 Imperial Highway Norwalk, CA 90650 (Near the intersection of the 5 and 605 freeways)
 - 2) 14340 Sylvan StreetVan Nuys, CA 91401(Near Van Nuys City Hall)
 - 3) 11701 S. La Cienega Blvd., 6th Floor Los Angeles, CA 90045 (LAX Courthouse)
- 6. Return the <u>certified</u> copy of the recorded form to the Bureau of Sanitation requiring the covenant (should be a purple stamp on the back of the last page of document recorded).

NO FINAL APPROVAL/CLEARANCE WILL BE GRANTED WITHOUT BUREAU OF SANITATION RECEIPT OF THE CERTIFIED COPY OF THE C&A, PLOT PLAN AND O&M PLAN.

Recording requested by and mail	to:				
Name:					
Address:					
Address.					
- 					
*******	****** Snace Ahove This I	ine For Recorder's Use ****	*****	******	*****
		COVENANT AND AGREEN			
REGA	RDING ON-SITE STORMW	VATER MITIGATION MEAS	URES AND MAI	NTENANCE	
I (We), the undersigned, hereby of the City of Los Angeles, County of				ed real property ("Pr	operty") located
ASSESSOR'S ID#	TRACT NO		BLOCK NO	LOT NO)
Site Address					
In consideration of the City of Los covenant and agree to install, ope Management Practices (BMPs) pe	erate and maintain in a good	d operable condition at all tir	mes, at my (our) s		tormwater Best
the site diagram attached hereto 1), the following on-site stormwa	as Exhibit 1. I (we) shall ma			•	•
☐ Rain Tank (min 55 gal): # of	barrels;	total gallons, with m	inimum of	Sq. Ft of vegetate	ed landscaping
Rain Tank / Cistern: # of tan	ıks / cistern;;	total gallons, with n	ninimum of	Sq. Ft of vegeta	ted landscaping
☐ Porous pavement/pavers:	Sq. Ft (for	incidental rainfall); and / or		Sq. Ft. with	ft sub base
Rain Garden (lined): # of rain	n gardens;	total Sq. Ft.	☐ Dry Well:		_ Cu. Ft.
Rain Garden (unlined): # of r	ain gardens;	total Sq. Ft.	☐ Infiltration	Trench:	Cu. F
☐ Flow Thru Planter: # of planter:	anters;	total Sq. Ft.	☐ Green Roo	f:	Sq. Ft
Other:					
Owner further covenants and ag revised Plan is approved by the device(s) or BMPs is modified, I (approval, and sign and record a S BMPs, as modified (along with a General Maintenance Obligation.	Bureau of Sanitation In the (we) shall immediately prov Supplemental Covenant and modified O&M Plan). No S	event that any portion of the vide the Bureau of Sanitation Agreement, specifying all of	ne above-specifien of the City of Lof the on-site storn	d on-site stormwater os Angeles with a rev nwater pollution ren	pollution removised Plan for the noval device(s)
This Master Covenant and Agree encumbrancers, their successors,	_				
Owner further covenants and agr buyer regarding the stormwater instructions for properly maintair	device(s) that are located o		•	•	
(Print Name of Property	/ Owner)	-	(Print N	ame of Property Owi	ner)
(Signature of Property C	Dwner)	-	(Signatu	ire of Property Owne	er)
Dated this day of	20	I	Dated this	day of	20
PLEASE ATTACH NOTARY ACKNO	-				
*********	*********** Space Below	This Line For Bureau Interna	al Use *******	******	******
Permit No.					
Approved for recording by: Dep	artment of Public Works, Bu	ureau of Sanitation			
				Date:	
Print Name) Engineering Associa	ate	(Signature)			

STORMWATER OBSERVATION REPORT FORM



(Residential ≥ 5 units & All other Development)

LOW IMPACT DEVELOPMENT

IN THE EVENT THAT THE APPROVED STORMWATER BMP CANNOT BE BUILT PER PLANS (OR ANY MODIFICATION), CONSULT WITH BUREAU OF SANITATION STAFF PRIOR TO ANY PLAN MODIFICATIONS. FAILURE TO DO SO MAY DELAY OBTAINING A FINAL APPROVAL AND CERTIFICATE OF OCCUPANCY (C OF O).

STORMWATER OBSERVATION means the visual observation of the stormwater related Best Management Practices (BMPs) for conformance with the approved LID Plan at significant construction stages and at completion of the project. Stormwater observation does not include or waive the responsibility for the inspections required by Section 108 or other sections of the City of Los Angeles Building Code.

STORMWATER OBSERVATION <u>must</u> be performed by the engineer or architect responsible for the approved LID Plan or designated staff in their employment. <u>As part of the observation, provide photos of the BMPs taken during various construction phases.</u>

STORMWATER OBSERVATION REPORT must be signed and stamped (see below) by the engineer or architect responsible for the approved LID Plan and submitted to the city <u>prior</u> to the issuance to the certificate of occupancy. <u>PRIOR TO CERTIFICATE OF OCCUPANCY (C of O), SOR FORM, PRINTED PHOTOS OF THE BMPS TAKEN DURING VARIOUS CONSTRUCTION PHASES AND APPROVED STAMPED PLANS BY THE BUREAU OF SANITATION MUST BE SUBMITTED TO THE PUBLIC COUNTER FOR STAFF APPROVAL.</u>

Project Address:		Building Perr	nit No.:	
Name of Engineer/Architect responsib LID Plan:	le for the approved	Phone Number	er:	
List all BMPs installed as part of the	project: Coordinat	es of the most	significant (or typical)	BMPs:
BMP Type:	# of units:	BMP Type:_		_ # of units:
Lat:; Long:; Long:; Long:	25962 (5 sig digits)	Lat:	; Long:	
BMP Type:	# of units:	BMP Type:_		_ # of units:
Lat:; Long:		Lat:	; Long:	
I DECLARE THAT THE FOLLOWIN TO THE BEST OF MY KNOWLEDGI		ARE TRUE		
 I am the engineer or architect responsand; I, or designated staff under my response required site visits at each significant completion to verify that the Best Mashown on approved plans have been accordance with the approved LID Plant 	nsible charge, has pre construction stage ar nagement Practices (constructed and instal	eformed the ad at the BMPs) as		
			Wet Stamp of Engin	neer or Architect
Signature	Date	-		

Low Impact Development (LID) Post Construction Stormwater Mitigation Best Management Practices (BMPs)



STORMWATER BMP(s) VERIFICATION

Upon installation of the approved stormwater BMPs, a Stormwater Observation Report (SOR) Form shall be submitted to Department of Public Works, Bureau of Sanitation. 201 N. Figueroa, 3rd floor, station 18. The SOR Form must be with filed and approved by the Bureau of Sanitation prior to the issuance of a Certificate of Occupancy.

Item #	Stormwater BMP	Description (Units, total)	Reference Sheet(s)* (Sheet #)
1	Rain Tank(s) – 55 to 130 gal each	(Sints) total)	(Sileet II)
2	Rain Tank(s) $- > 130$ gal min		
3	Shade Tree - min 15 gal		
4	Flow thru Planter(s)		
5	Permeable pavers / Porous concrete	☐ Incidental;tota	al SF
3	(min 10% open space)	☐ Infiltration; tota	ıl SF
6	Rain Garden	☐ # Lined; tot	al SF
		☐ # Unlined; tota	al SF
7	Dry Well		
8	SUMP Pump (modification was not required)		

ALL OTHER DEVELOPMENT

(Residential: $5 \ge \text{units}$, $10,000 \ge \text{SF}$, within a ESA and $\ge 2,500 \text{SF}$)

Project Address:

	Item #	Stormwater BMP	Description (Units, total)	Reference Sheet(s)* (Sheet #)
u	1	Infiltration Basin / Trench		
Infiltration	2	Dry Well		
Infil	3	Permeable pavers / Porous concrete (min 10% open space)	☐ Incidental;total SF ☐ Infiltration;total SF	
ıre	4	Rain Tank(s) - 530 gal min		
Capture & Use	5	Cistern	☐ Above Grade ☐ Below Grade	
e,	6	Flow thru Planter(s)		
Treat & Discharge	7	Biofiltration		
% %	8	Vegetative Swale / Filter Strip		
at	9	Catch Basin Filter(s)		
- re	10	Trench Drain Filter(s)		
	11	Down Spout Filter(s)		
	12	SUMP Pump (modification was not required)	and Deef Dien Civil Charte and Dateil	

^{*} At a minimum: Site Plan, Architectural Elevations, Roof Plan, Civil Sheets and Detail