Appendix J: Special Projects

Int	roduction	J-2
	Category A: Small Infill Projects	J-2
	Category B: Larger Infill Projects	J-3
J.3	Category C: Transit-Oriented Development	J-5
J.4	Calculating the LID Treatment Reduction Credit (Special Project Worksheet)	J-8
J.5	Applying the LID Treatment Reduction Credits to Special Projects	J-9
J.6	LID Infeasibility Requirement for Special Projects	J-9

Introduction

On November 28, 2011, the San Francisco Bay Regional Water Quality Control Board (Water Board) amended the MRP to allow LID treatment reduction credits for three categories of smart growth, high density and transit-oriented development project, called Special Projects, described below. When the MRP was reissued on November 19, 2015, certain aspects of Provision C.3.e.ii were revised. Projects that receive LID treatment reduction credits may be allowed to use specific types of non-LID treatment, *if the use of LID treatment is first evaluated and determined to be infeasible by the permitting jurisdiction*. As described in Section J.6, documentation must be provided by the project applicant to show why the use of LID treatment is considered infeasible.

The types of non-LID treatment that may be used are:

- High flow-rate media filters, and
- High flow-rate tree well filters (also called high flow-rate tree box filters).

The three categories of Special Projects are:

- Category A: Small Infill Projects (<½ acre of impervious surface)
- Category B: Larger Infill Projects (≤ 2 acres of impervious surface)
- Category C: Transit-Oriented Development

Any Regulated Project that meets all the criteria for more than one Special Project Category (such as a Regulated Project that may be characterized as a Category B or C Special Project) may only use the LID Treatment Reduction Credit allowed under one of the categories. For example, a Regulated Project that may be characterized as a Category B or C Special Project may use the LID Treatment Reduction Credit allowed under Category B or Category C, but not the sum of both.

J.1 Category A: Small Infill Projects

The defining criteria and LID treatment reduction credits for Category A projects are described below.

Criteria for Category A (Small Infill) Special Projects

To be considered a Category A Special Project, a Provision C.3 Regulated Project must meet <u>all</u> of the following criteria:

- 1. Be built as part of the municipality's stated objective to preserve or enhance a pedestrian-oriented type of urban design.
- 2. Be located in the municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian oriented commercial district, or historic preservation site and/or district.
- 3. Create and/or replace one half acre or less of impervious surface area.
- 4. Include no surface parking, except for incidental surface parking. Incidental surface parking is allowed only for emergency vehicle access, Americans with Disabilities Act (ADA) accessibility, and passenger and freight loading zones.

5. Have at least 85% coverage for the entire project site by permanent structures. The remaining 15% portion of the site is to be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping, and stormwater treatment.

LID Treatment Reduction for Category A (Small Infill) Special Projects

A Category A Special Project may qualify for 100% LID Treatment Reduction Credit, which would allow the Category A Special Project to treat up to 100% of the amount of stormwater runoff specified by Provision C.3.d with either one or a combination of the two types of allowed non-LID treatment systems(high flow-rate media filters and high flow-rate tree well filters). Prior to receiving the LID treatment reduction credits, the applicant must demonstrate, to the satisfaction of municipal staff, that LID treatment is infeasible, as described in Section J.6.

J.2 Category B: Larger Infill Projects

The defining criteria and LID treatment reduction credits for Category B projects are described below.

Criteria for Category B (Larger Infill) Special Projects

To be considered a Category B Special Project, a Provision C.3 Regulated Project must meet <u>all</u> of the following criteria:

- 1. Be built as part of the municipality's stated objective to preserve or enhance a pedestrian-oriented type of urban design.
- 2. Be located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian oriented commercial district, or historic preservation site and/or district.
- 3. Create and/or replace greater than one-half acre but no more than 2 acres of impervious surface area
- 4. Include no surface parking, except for incidental surface parking. Incidental surface parking is allowed only for emergency vehicle access, ADA accessibility, and passenger and freight loading zones.
- 5. Have at least 85% coverage for the entire project site by permanent structures. The remaining 15% portion of the site is to be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping, and stormwater treatment.

LID Treatment Reduction for Category B (Larger Infill) Special Projects

For Category B Special Projects, the maximum LID treatment reduction credit allowed varies depending upon the density achieved by the project in accordance with the criteria shown in Table J-1. Density is

expressed in Floor Area Ratios (FARs) ⁵⁹ for commercial projects and in Dwelling Units per Acre (DU/Ac) ⁶⁰ (gross density) for residential development projects. Density of mixed-use development projects may be expressed as FAR or DU/Ac. The credits are expressed in percentages of the amount of stormwater runoff specified by Provision C.3.d for the Project's drainage area. The Special Project may treat the percentage of the C.3.d amount of runoff that corresponds to the project's density using either one or a combination of the two types of allowed non-LID treatment systems(high flow-rate media filters and high flow-rate tree well filters). To be eligible to receive the LID treatment reduction credits, the applicant must demonstrate, to the satisfaction of municipal staff, that LID treatment is infeasible, as described in Section J.6. Any remaining amount of stormwater runoff must be treated with LID treatment measures.

% of the C.3.d Amount of Runoff that May Receive Non-LID	Land Use Type	Density Required to Obtain the LID Treatment Reduction Credit
Treatment		(see Notes)
50%	Commercial	Floor Area Ratio 2:1
50%	Residential	50 Dwelling Units/Acre
50%	Mixed Use	Floor Area Ratio 2:1, or
3070	Wilked Ose	50 Dwelling Units/Acre
75%	Commercial	Floor Area Ratio 3:1
75%	Residential	75 Dwelling Units/Acre
F.00/	Mixed Use	Floor Area Ratio 3:1, or
50%		75 Dwelling Units/Acre
100%	Commercial	Floor Area Ratio 4:1
100%	Residential	100 Dwelling Units/Acre
100%	Mixed Use	Floor Area Ratio 4:1, or 100 Dwelling Units/Acre

Notes:

⁵⁹ Floor Area Ratio = The ratio of the total floor area on all floors of all buildings at a project site (except structures, floors, or floor areas dedicated to parking) to the total project site area.

⁶⁰ Gross Density in Dwelling Units per Acre = The total number of residential units divided by the acreage of the entire site area, including land occupied by public rights-of-way, recreational, civic, commercial and other non-residential uses

J.3 Category C: Transit-Oriented Development

<u>Floor Area Ratio</u> = The ratio of the total floor area on all floors of all buildings at a project site (except structures, floors, or floor areas dedicated to parking) to the total project site area.

<u>Dwelling Units per Acre (Gross Density)</u> = The total number of residential units divided by the acreage of the entire site area, including land occupied by public rights-of-way, recreational, civic, commercial and other non-residential uses.

J.3 Category C: Transit-Oriented Development

The defining criteria and LID treatment reduction credits for Category C projects are described below.

Criteria for Category C (Transit Oriented development) Special Projects

To be considered a Category C Special Project, a Provision C.3 Regulated Project must meet all of the following criteria:

- 1. Be characterized as a non-auto-related land use project. That is, Category C specifically excludes any Regulated Project that is a stand-alone surface parking lot; car dealership; auto and truck rental facility with onsite surface storage; fast-food restaurant, bank or pharmacy with drive-through lanes; gas station, car wash, auto repair and service facility; or other auto-related project unrelated to the concept of Transit-Oriented Development.
- 2. If a commercial project, achieve at least an FAR of 2:1.
- 3. If a residential development project, achieve at least a gross density of 25 DU/Ac.
- 4. If a mixed-use development project, achieve an FAR of at least 2:1, or a gross density of 25 DU/Ac.

LID Treatment Reduction for Category C (Transit-Oriented Development)

For Category C Special Projects, the total maximum LID treatment reduction credit allowed is the sum of three different types of credits for which the Category C Special Project qualifies. These credits are categorized as follows:

- Location Credits,
- Density Credits, and
- Minimized Surface Parking Credits.

The Special Project may use either one or a combination of the two types of allowed non-LID treatment systems (high flow-rate media filters and high flow-rate tree well filters) to treat the total percentage of the C.3.d amount of stormwater runoff that results from adding together the Location, Density and Minimized Surface Parking credits that the project is eligible for. In addition, to be eligible to receive the LID treatment reduction credits, the applicant must demonstrate, to the satisfaction of municipal staff, that LID treatment is infeasible, as described in Section J.6. Any remaining amount of stormwater runoff must be treated with LID treatment measures.

Location Credits (Transit-Oriented Development)

Location credits are based on the project site's proximity to a transit hub⁶¹, or its location within a planned Priority Development Area (PDA)⁶². Only one Location Credit may be used by an individual Category C Special Project, even if the project qualifies for multiple Location Credits. In order to qualify for a Location Credit, at least 50% or more of a Category C Special Project's site must be located within the $\frac{1}{2}$ or $\frac{1}{2}$ mile radius of an existing or planned transit hub, or 100% of the site must be located within a PDA. The Location Credits, presented in Table J-2, are expressed in percentages of the amount of stormwater runoff specified by Provision C.3.d for the project's drainage area.

Table J-2: Location Credits for Category C, Transit Oriented Development (Only one Location Credit may be used.)		
% of the C.3.d Amount of Runoff that May Receive Non-LID Treatment	Project Site Location	
50%	50% or more of the site is located within a ¼ or ½ mile radius of an existing or planned transit hub	
25%	50% or more of the site is located within a ½ mile radius of an existing or planned transit hub	
25%	100% of the site is located within a PDA	

To determine the distance from the transit hub, draw a circle around the transit hub with its center in the center of the transit hub and its radius equal to ¼ mile or ½ mile. If 50% or more of the project site falls within the circle, the associated credits may be applied. The distance is measured "as the crow flies" and may not be the actual walking distance to the transit hub.

Density Credits (Transit-Oriented Development)

To qualify for any Density Credits, a Category C Special Project must first qualify for one of the Location Credits listed above. The Density Credits are based on the density achieved by the project in accordance with the criteria shown in Table J-3. Density is expressed in Floor Area Ratios (FARs) for commercial development projects and in Dwelling Units per Acre (DU/Ac) (gross density) for residential development projects. For mixed-use development projects, density may be expressed as DU/Ac or FAR. The credits are

C 1

⁶¹ Transit hub is defined as a rail, light rail, or commuter rail station, ferry terminal, or bus transfer station served by three or more bus routes (i.e., a bus stop with no supporting services does not qualify). A planned transit hub is a station on the MTC's Regional Transit Expansion Program list, per MTC's Resolution 3434 (revised April 2006), which is a regional priority funding plan for future transit stations in the San Francisco Bay Area.

⁶² A planned Priority Development Area (PDA) is an infill development area formally designated by the Association of Bay Area Government's / Metropolitan Transportation Commission's FOCUS regional planning program. FOCUS is a regional incentive-based development and conservation strategy for the SF Bay Area.

expressed in percentages of the amount of stormwater runoff specified in Provision C.3.d. Commercial Category C projects do not qualify for Density Credits based on DU/Ac, and residential Category C Projects do not qualify for Density Credits based on FAR. Only one Density Credit may be used by an individual Category C Special Project, even if the project qualifies for multiple Density Credits.

Table J-3: Density Credits for Category C, Transit Oriented Development (Only one Density Credit may be used.)				
% of the C.3.d Amount of Runoff that May Receive Non-LID Treatment	Land Use Type	Density Required to Obtain the Density Credit		
10%	Commercial	Floor Area Ratio 2:1		
10%	Residential	30 Dwelling Units/Acre		
10%	Mixed Use	Floor Area Ratio 2:1, or 30 Dwelling Units/Acre		
20%	Commercial	Floor Area Ratio 4:1		
20%	Residential	60 Dwelling Units/Acre		
20%	Mixed Use	Floor Area Ratio 3:1, or 60 Dwelling Units/Acre		
30%	Commercial	Floor Area Ratio 6:1		
30%	Residential	100 Dwelling Units/Acre		
30%	Mixed Use	Floor Area Ratio 6:1, or 100 Dwelling Units/Acre		

Notes:

<u>Floor Area Ratio</u> = The ratio of the total floor area on all floors of all buildings at a project site (except structures, floors, or floor areas dedicated to parking) to the total project site area.

<u>Dwelling Units per Acre (Gross Density)</u> = The total number of residential units divided by the acreage of the entire site area, including land occupied by public rights-of-way, recreational, civic, commercial and other non-residential uses.

Minimized Surface Parking Credits (Transit-Oriented Development)

To qualify for any Minimized Surface Parking Credits, a Category C Special Project must first qualify for one of the Location Credits listed above. The LID treatment reduction credit is based on the amount of post-project impervious surface area that is dedicated to at-grade surface parking, in accordance with the criteria shown in Table J-4. The credits are expressed in percentages of the amount of stormwater runoff specified in Provision C.3.d. If the Minimized Surface Parking Credit is applied, <u>any</u> at-grade surface parking must be treated with LID treatment measures. If a project does not qualify for Minimized Surface Parking

J.4 Calculating the LID Treatment Reduction Credit (Special Projects Worksheet)

Credit or is not claiming that credit, credits (e.g. non-LID treatment) can be used to treat surface parking. Only one Minimized Surface Parking Credit may be used by an individual Category C Special Project, even if the project qualifies for multiple Minimized Surface Parking Credits.

Table J-4: Minimized Surface Parking Credits for Category C, Transit Oriented Development (Only one Minimized Surface Parking Credit may be used.)				
% of the C.3.d Amount of Runoff that May Receive Non- LID Treatment	Percentage of the Total Post-Project Impervious Surface Dedicated to At-Grade, Surface Parking			
10%	10% or less			
20%	0% (except for emergency vehicle access, ADA accessibility and passenger and freight loading zones)			

The MRP does not specify how to calculate the amount of surface parking. SMCWPPP recommends not including the drive aisle (i.e., only including parking stalls) if the drive aisle is used for access to the building, for calculating Special Project credits. The whole parking lot (parking stalls and drive aisles) should be used to evaluate if the site exceeds the C.3 size thresholds as discussed in Section 2.3.

J.4 Calculating the LID Treatment Reduction Credit (Special Projects Worksheet)

The Countywide Program has prepared a Special Projects Worksheet (Attachment J-1) to document that a project meets the criteria for Special Project Categories A, B, and/or C and to calculate the total allowable LID treatment reduction credit for which the project is eligible. The municipality may require submittal of the Special Projects Worksheet, or a similar worksheet, as part of project submittals. To download an electronic version of the worksheet, visit the Program's website www.flowstobay.org and click on "At Work", then "New Development", then "Forms and Checklists".

If the project meets all the criteria for more than one Special Project Category, it may use only the LID treatment reduction credit allowed under one of the categories. However, the worksheet may be used to compute the credit allowed under each category in order to determine which category would allow the most credit.

J.5 Applying the LID Treatment Reduction Credits to Special Projects

The following steps should be used to develop a project-specific stormwater management plan for a Special Project, and apply the LID treatment reduction credits allowed for the project.

- 1. Determine the total amount of impervious surface created and/or replaced on site that is subject to C.3 treatment requirements, and the associated C.3.d volume of runoff. This is the area and volume for which the LID treatment reduction credits will be applied to determine the maximum amount of runoff that can be treated using non-LID treatment measures.
- 2. Define drainage management areas on the site, and identify self-treating and self-retaining areas, if any (see Chapter 4).
- 3. Adjust drainage management areas as needed to route the amount of runoff that needs to be treated with LID treatment measures and as much of the rest of the C.3.d amount of runoff as possible to LID treatment measures.
- 4. For the portion of runoff that must be treated with non-LID treatment measures (up to the allowable LID treatment reduction credit), document the reasons why LID treatment measures cannot be used (see Section J.6).

J.6 LID Infeasibility Requirement for Special Projects

In order to be considered a Special Project, in addition to documenting that all applicable criteria for one of the above-described Special Project categories have been met, the project applicant must provide a narrative discussion of the feasibility or infeasibility of using 100 percent LID treatment onsite and offsite, for review by municipal staff. Both technical and economic feasibility or infeasibility should be discussed, as applicable. The narrative discussion should establish all of the following:

- The infeasibility of treating 100% of the amount of runoff identified in Provision C.3.d for the Regulated Project's drainage area with LID treatment measures onsite.
- The infeasibility of treating 100% of the amount of runoff identified in Provision C.3.d for the Regulated Project's drainage area with LID treatment measures onsite or paying in-lieu fees to treat 100% of the Provision C.3.d runoff with LID treatment measures at an offsite or Regional Project.
- The infeasibility of treating 100% of the amount of runoff identified in Provision C.3.d for the Regulated Project's drainage area with some combination of LID treatment measures onsite, offsite, and/or paying in-lieu fees toward an offsite or Regional Project.

The narrative discussion should describe how the routing of stormwater runoff has been optimized to route as much runoff as possible to LID treatment measures. A discussion should also be provided for each area of the site for which runoff will be treated with non-LID treatment measures, and must identify the basis for infeasibility. The following issues should be considered:

- 1. Uses of impervious surfaces that preclude the use of LID treatment; and
- 2. Technical constraints that preclude the use of any landscaped areas for LID treatment, such as:

J.6 LID Infeasibility Requirement for Special Projects

- a. Inadequate size to accommodate biotreatment facilities that meet the sizing requirements for the drainage area;
- b. Slopes too steep to terrace;
- c. Proximity to an unstable bank or slope;
- d. Environmental constraints (e.g., landscaped area is within riparian corridor);
- e. High groundwater or shallow bedrock;
- f. Conflict with subsurface utilities;
- g. Cap over polluted soil or groundwater;
- h. Lack of head or routing path to move collected runoff to the landscaped area or from the landscaped area to the disposal point;
- i. Other conflicts or required uses that preclude use for stormwater treatment (explain).

In addition, it must be demonstrated to the municipality performing the project review that it is infeasible to provide LID treatment of an equivalent amount of runoff offsite either at a regional project or on other property owned by the project proponent in the same watershed (in other words, demonstrate that alternative compliance, as described in Chapter 9, is infeasible). Check with the local municipality to determine if there are any regional projects or other options available for alternative compliance purposes.

Attachment J-1, on the following page, provides the Special Projects form and Attachment J-2 includes a template for preparing a narrative discussion on the feasibility or infeasibility of providing 100 percent LID treatment.

Please note that your municipality may require a higher proportion of LID treatment than allowed in this section, at its discretion, based on site context and constraints.



Attachment J-1 **Special Projects Worksheet**

Complete this worksheet for projects that appear to meet the definition of "Special Project", per Provision C.3.e.ii of the Municipal Regional Stormwater Permit (MRP). The form assists in determining whether a project meets Special Project criteria, and the percentage of low impact development (LID) treatment reduction credit. Special Projects that implement less than 100% LID treatment must provide a narrative discussion of the feasibility or infeasibility of 100% LID treatment. Also at www.flowstobay.org

Pro	ject Nam	e:
Pro	ject Addr	ress:
Ар	plicant/De	eveloper Name:
1.	"Special	Project" Determination:
	Special	Project Category "A"
	Does th	e project have ALL of the following characteristics?
		Located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district ¹ ;
		Creates and/or replaces 0.5 acres or less of impervious surface;
		Includes no surface parking, except for incidental parking for emergency vehicle access, ADA access, and passenger or freight loading zones;
		Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment.
		continue)
		Project Category "B"
		e project have ALL of the following characteristics?
	Loc	ated in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district ²⁰ ;
		ates and/or replaces more than 0.5 acres of impervious area and less than 2.0 acres; ludes no surface parking, except for incidental parking for emergency access, ADA access, and passenger or freight loading zones;
	Has	s at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment;
	Mir	nimum Gross ² Density of either 50 dwelling units per acre (residential projects) or a Floor Area Ratio ² (FAR) of 2:1 (for commercial projects) - mixed use projects may use either criterion. Note Change on 7/1/16²
	☐ No (continue) Yes – Complete Section F-2 below
	Special	Project Category "C"
	Does th	e project have ALL of the following characteristics?
		At least 50% of the project area is within 1/2 mile of an existing or planned transit hub³ or 100% within a planned Priority Development Area⁴;

¹ And built as part of a municipality's stated objective to preserve/enhance a pedestrian-oriented type of urban design.

² Effective 7/1/16, the MRP establishes definitions for "Gross Density" (GD) & FAR. GD is defined as, "the total number of residential units divided by the acreage of the entire site area, including land occupied by public right-of-ways, recreational, civic, commercial and other non-residential uses." FAR is defined as," the Ratio of the total floor area on all floors of all buildings at a project site (except structures, floors, or floor areas dedicated to parking) to the total project site area.

³ "Transit hub" is defined as a rail, light rail, or commuter rail station, ferry terminal, or bus transfer station served by three or more bus routes. (A bus stop with no supporting services does not qualify.)

⁴ A "planned Priority Development Area" is an infill development area formally designated by the Association of Bay Area Government's / Metropolitan Transportation Commission's FOCUS regional planning program.

Special Projects Worksheet (continued) The project is characterized as a non-auto-related use⁵; and Minimum Gross² Density of either 25 dwelling units per acre (for residential projects) or a Floor Area Ratio² (FAR) of 2:1 (for commercial projects) - mixed use projects may use either criterion. Note Change on 7/1/16² No (continue) Yes – Complete Section F-2 below 2. LID Treatment Reduction Credit Calculation:

Category	Impervious Area Created/Replaced (acres)	Site Coverage (%)	Project Density or FAR	Density/Criteria	Allowable Credit (%)	Applied Credit (%)
А			N.A.	N.A.	100%	
В				Res ≥ 50 DU/ac or FAR ≥ 2:1	50%	
				Res ≥ 75 DU/ac or FAR ≥ 3:1	75%	
				Res ≥ 100 DU/ac or FAR ≥ 4:1	100%	
С				Location credit (select one) ⁶ :		
				Within ¼ mile of transit hub	50%	
				Within ½ mile of transit hub	25%	
				Within a planned PDA	25%	
				Density credit (select one):		
				Res ≥ 30 DU/ac or FAR ≥ 2:1	10%	
				Res ≥ 60 DU/ac or FAR ≥ 4:1	20%	
				Res ≥ 100 DU/ac or FAR ≥ 6:1	30%	
				Parking credit (select one):		
				≤ 10% at-grade surface parking ⁷	10%	
				No surface parking	20%	
				TOTAL	TOD CREDIT =	

3. Narrative Discussion of the Feasibility/Infeasibility of 100% LID Treatment:

If project will implement less than 100% LID, refer to the Potential Special Projects Reporting Form to prepare a discussion	of
the feasibility or infeasibility of 100% LID treatment, as required by MRP Provision C.3.e.vi(2).	

Special Projects Worksheet Completed by:		
Signature	Date	
Print or Type Name		

⁵ Category C specifically excludes stand-alone surface parking lots; car dealerships; auto and truck rental facilities with onsite surface storage; fast-food restaurants, banks or pharmacies with drive-through lanes; gas stations; car washes; auto repair and service facilities; or other auto-related project unrelated to the concept of transit oriented development.

⁶ To qualify for the location credit, at least 50% of the project's site must be located within the ¼ mile or ½ mile radius of an existing or planned transit hub, as defined on page 1, footnote 2. A planned transit hub is a station on the MTC's Regional Transit Expansion Program list, per MTC's Resolution 3434 (revised April 2006), which is a regional priority funding plan for future transit stations in the San Francisco Bay Area. To qualify for the PDA location credit, 100% of the project site must be located within a PDA, as defined on page 1, footnote 3.

⁷ The at-grade surface parking must be treated with LID treatment measures.

Attachment J2: Template for Narrative Discussion of LID Feasibility or Infeasibility

For each potential Special Project, provide a narrative discussion of the feasibility or infeasibility of 100% LID treatment, onsite and offsite, using the template provided below. Insert information specific to the project where indicated with brackets and yellow shading [[== insert information here ==]]. Delete this text box before completing your the narrative discussion.

[[== Insert Project Name ==]] Narrative Discussion of Low Impact Development Feasibility/Infeasibility

This report provides a narrative discussion of the feasibility or infeasibility of providing 100 percent low impact development (LID) treatment for [[== Insert Project Name ==]], which has been identified as a potential Special Project, based on Special Project criteria provided in Provision C.3.e.ii of the Municipal Regional Stormwater Permit (MRP). This report is prepared in accordance with the requirement in MRP Provision C.3.e.vi.(2), to include in Special Projects reporting a narrative discussion of the feasibility or infeasibility of 100 percent LID treatment onsite or offsite.

1. Feasibility/Infeasibility of Onsite LID Treatment

The project site was reviewed with regard to the feasibility and infeasibility of onsite LID treatment. The results of this review showed that it was [[== feasible/infeasible ==]] to treat [[== percent [fill in percentage] ==]] of the C.3.d amount of runoff with LID treatment. The findings of this review are presented below.

- a. On-site Drainage Conditions. [[== Describe the site drainage, including the site slope, direction of flow, and how the site was divided into drainage management areas that will each drain to a separate stormwater treatment measure.==]
- b. Self-treating and Self-Retaining Areas and LID Treatment Measures. [[== Describe any drainage management areas for which self-treating or self-retaining areas (such as pervious pavement, green roofs or landscaped areas) or LID treatment measures are provided. If there are none, delete this paragraph. ==]].
- c. Maximizing Flow to LID Features and Facilities. [[== Explain how the routing of drainage has been optimized to route as much drainage as possible to LID features and facilities (if any). If there are no LID features or facilities, delete this paragraph. ==]]
- d. Constraints to Providing On-site LID. The drainage management areas that are proposed to drain to tree-box type high flow rate biofilters and/or vault-based high flow rate media filters include some areas that are not covered by buildings. [[== Briefly describe all areas within these portions of the site that are not covered by buildings. ==]] In these areas, conditions and technical constraints are present that preclude the use of LID features and facilities, as described below.
 - i. Impervious paved areas: [[== Describe the uses of all impervious paved areas in these areas, and why the uses preclude the use of LID treatment. ==]]
 - ii. Landscaped areas: [[== For any of the following bullet points that are applicable, briefly describe how the conditions apply to the applicable landscaped areas. Delete any of the bullet points that are not applicable. ==]]
 - Inadequate size to accommodate biotreatment facilities that meet sizing requirements for the tributary area.
 - Slopes too steep to terrace;
 - Proximity to an unstable bank or slope;
 - Environmental constraints (for example, landscaped area is within riparian corridor);
 - High groundwater or shallow bedrock;

- Conflict with subsurface utilities;
- Cap over polluted soil or groundwater;
- Lack of head or routing path to move collected runoff to the landscaped area or from the landscaped area to a disposal point;
- Other conflicts, including required uses that preclude use for stormwater treatment (describe in more detail).
- 2. Feasibility/Infeasibility of Off-Site LID Treatment. The possibility of providing off-site LID treatment was found to be [[== feasible/infeasible ==]] for the following reasons.
 - i. [[== Describe whether the project proponent owns or otherwise controls land within the same watershed of the project that can accommodate in perpetuity off-site bioretention facilities adequately sized to treat the runoff volume of the primary project. ==]]
 - ii. [[== Indicate whether there is a regional LID stormwater mitigation program available to the project for in-lieu C.3 compliance. ==]]

Appendix K: Biotreatment Soil Media Specifications

Intr	oduction	K-2
K.1	BASMAA Regional Biotreatment Soil Specification	K-3
K.2	Biotreatment Soil Media Specification Verification Checklist	K-8