



MINUTES  
PLANNING COMMISSION MEETING  
1300 NE Village Street  
Fairview, OR 97024  
Tuesday, June 24, 2014

PRESENT: Keith Kudrna  
Gary Stonewall, Chair  
Greg Walczyk  
Jack McGiffin

ABSENT: Julius Arceo  
Ed Jones, Vice-Chair  
Steve Kaufman

STAFF: Allan Berry, Public Works Director  
Erika Palmer, Development Analyst  
Devree Leymaster, City Recorder

**1. CALL TO ORDER**

Chair Stonewall called the meeting to order at 6:30pm.

**2. CITIZENS WISHING TO SPEAK ON NON-AGENDA ITEMS**

Chair Stonewall inquired if any person would like to speak on a non-agenda item, hearing none moved to review and adopt minutes.

**3. REVIEW AND ADOPT MINUTES**

Commissioner Kudrna moved to approve the November 12, 2013 minutes and Commissioner McGiffin seconded. The motion passed unanimously.

Commissioner Kudrna moved to approve the May 27, 2014 minutes and Commissioner McGiffin seconded. The motion passed unanimously.

**4. WORK SESSION**

Low Impact Development (LID) Strategies and Development Code

Development Analyst Palmer reviewed what, why and the principles of LID strategies in a power point presentation. (*Exhibit A*) LID is often described as a form of stormwater management, but it is important to recognize that LID really uses stormwater as a form of leverage to improve the entire development process, and to minimize the impact of development on the entire landscape. LID is needed due to the increasing costs of regulatory permitting and the high cost and low effectiveness of conventional “pipe and pond” strategies. In short, the conventional strategies aren’t working. The main principle is to use existing natural systems as the framework for on-site stormwater planning and management. Treat the stormwater close to the source using simple, non-structural, low-tech, low-cost methods when possible i.e. multifunctional landscaping.

Development Analyst Palmer highlighted LID options for roadways and parking areas using permeable, bio-retention, and/or infiltration methods. Examples for collecting roof run-off include rain barrels to collect water for repurposing, green roof system, and stormwater planters.

The next step is to review the Development Code and identify if there are any items in the code that are creating barriers for LID. Development Analyst Palmer handed out a LID Code Checklist (*Exhibit B*) to assist in flagging potential issues within the code.

Director Berry reiterated removing LID barriers within the code is part of the MS4 permit requirements. Long term maintenance of the infrastructure will need to be considered. Who is responsible for maintaining and sustaining systems within the right-of-way? Potential building code barriers may need to be addressed as well.

Development Analyst Palmer noted another item to consider is what can be done to encourage using these options i.e. reduce application fees, SDC rate adjustments for LID, etc.

Commissioner Kudrna summarized LID promotes being more ecological friendly on your property. Chair Stonewall commented it may be beneficial to create standards for optional uses i.e. rain barrels.

## 5. STAFF UPDATES

Public Works Director Berry reported the following:

- Anthem Church is locating at the Bally's site. The first service is tentatively scheduled for August 18. They are interested in pursuing or offering a Saturday Market in their parking lot.
- The levy recertification process is underway. The deadline for completion is 2017. Determining who is responsible for what and pays for what. The results of the levy recertification could impact FEMA insurance and surrounding development.

Development Analyst Palmer reported:

- Staff applied for a Transportation Growth Management (TGM) grant to update the City Transportation Plan
- Staff is reviewing a minor modification application to install carports at Chinook RV on Marine Drive.
- Planning Commission is invited to the meet-and-great luncheon Friday, July 11 for Nyxio; a business considering relocating to Fairview.

## 6. COMMISSION UPDATES

None.

## 7. TENTATIVE AGENDA – July 22, 2014

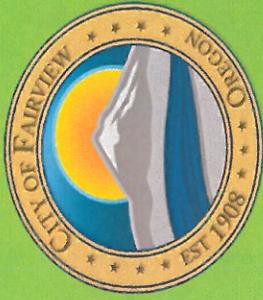
Work Session – Code Review for barriers to LID.

## 8. ADJOURNMENT

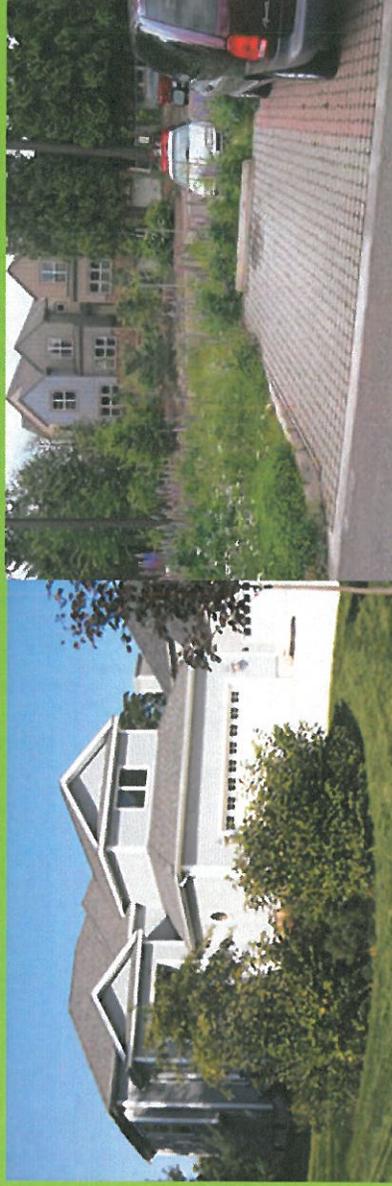
Meeting adjourned by consensus at 7:16PM.

  
Devree A. Leymaster  
City Recorder

Gary Stonewall, Chair  
  
Date: 7-22-2014



# Low Impact Development Principles, Techniques, and Implementation



Planning Commission June 24, 2014

# Presentation Outline

- What is Low Impact Development?
- Why do we need LID?
- Low Impact Development Principles
- Low Impact Development Techniques
- Benefits of LID
- Local Implementation & Considerations

# What is Low Impact Development?

- Comprehensive, landscape-based approach to sustainable development
- Set of strategies to maintain existing natural systems, hydrology, ecology
- Cost-effective, flexible approach based on a toolkit of simple techniques
- Collection of practices that have been implemented nationwide

# What is Low Impact Development?

- NOT rocket science
- NOT formulaic
- NOT the answer to every challenge
- NOT yet finished evolving

# WHY DO WE NEED LOW IMPACT DEVELOPMENT?

Conventional strategies aren't working

- Increased runoff & decreased recharge
- Loss of vegetation and habitat
- Loss of community character
- Polluted waterways
- Cost of development

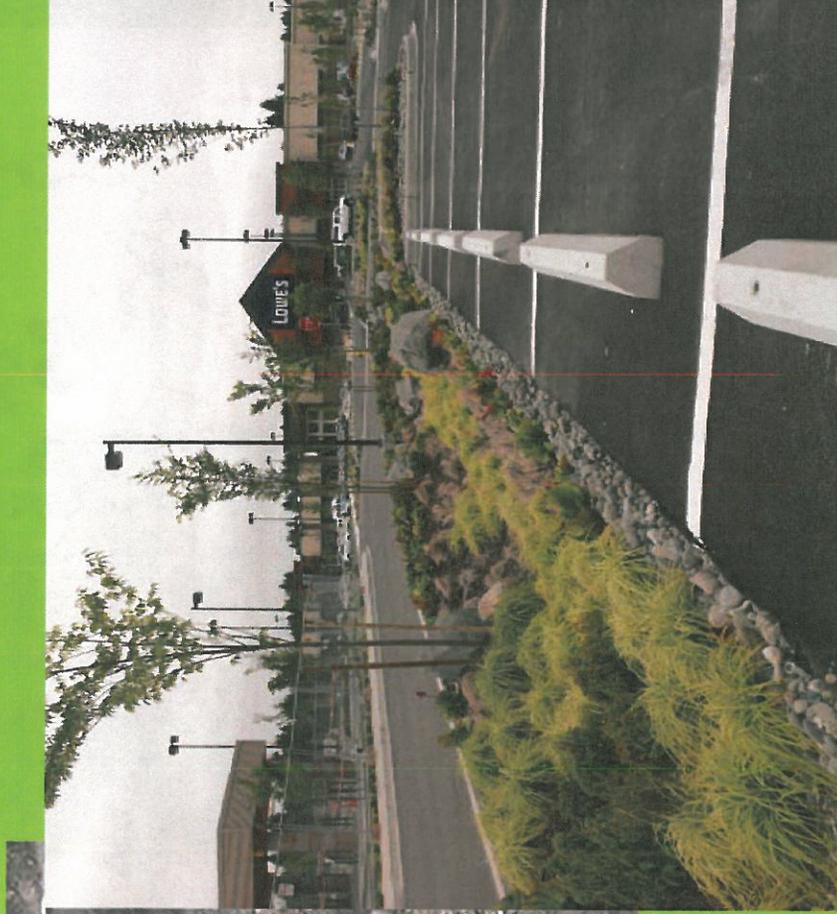
# WHY DO WE NEED LOW IMPACT DEVELOPMENT?

High cost and low effectiveness of conventional “pipe and pond” strategies



# WHY DO WE NEED LOW IMPACT DEVELOPMENT?

Increase cost of regulatory permitting



## LID PRINCIPLES

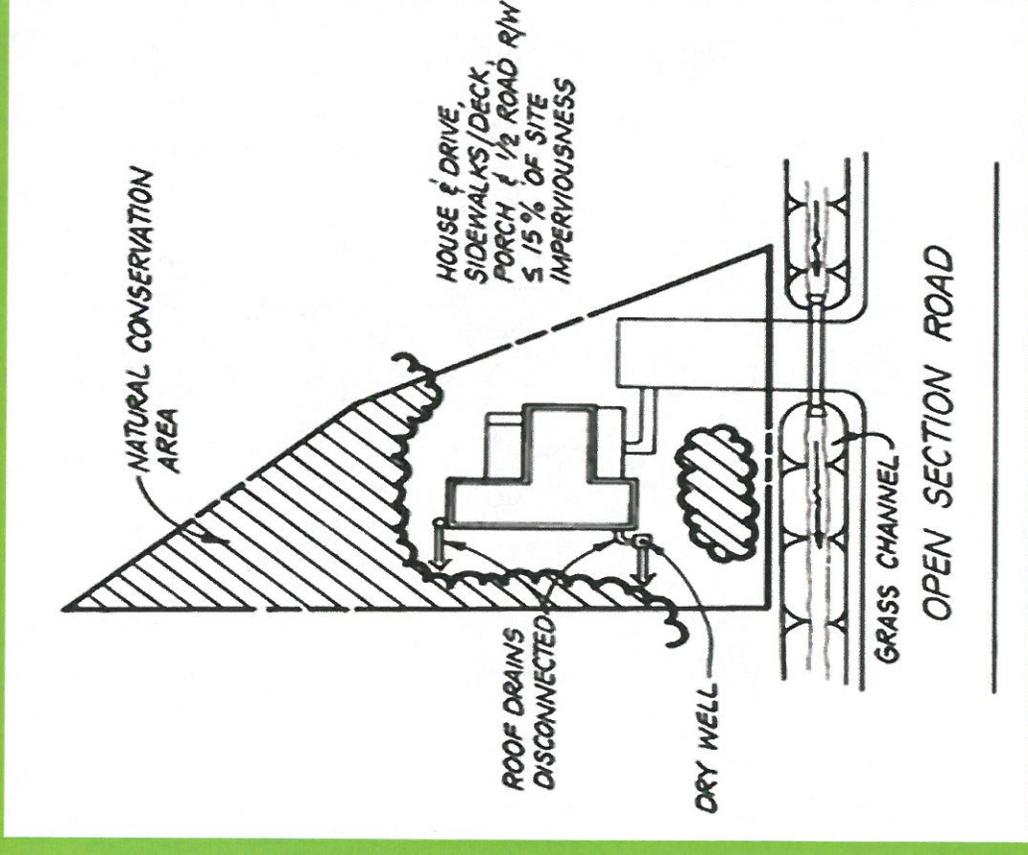
# 1. Use existing natural systems as the integrating framework for site planning



## LID PRINCIPLES

### 2. Focus on prevention

- Minimize clearing and grading
- Reduce road widths, use shared driveways, reduce parking area
- Align roads to minimize impact
- Use green rooftops
- Use permeable paving



## LID PRINCIPLES

### 3. Treat stormwater close to the source

- Manage runoff in a treatment train of small structures
- Flatten slopes, lengthen flow paths, maximize sheet flow
- Maintain natural flow paths, use open drainage
- Use LID techniques to manage frequent, low-intensity storms



## LID PRINCIPLES

### 4. Emphasize simple, nonstructural, low-tech, low-cost methods

- Open drainage systems and filter strips
- Disconnection of roof runoff
- Rain barrels
- Street sweeping
- Public education
- Reduce construction disturbance
- Minimize lawn area



## LID PRINCIPLES

### 5. Create a multifunctional landscape

- Use stormwater management components that provide filtration, treatment, and infiltration.
- Provide open space and wildlife habitat.
- Store water for landscape use
- Reduce heat island effect
- Enhance site aesthetics



## LID PRINCIPLES

### 6. Maintain and sustain

- Reduce use of pesticides and fertilizers.
- Use drought-resistant plants.
- Maintain rain gardens and bioretention areas.

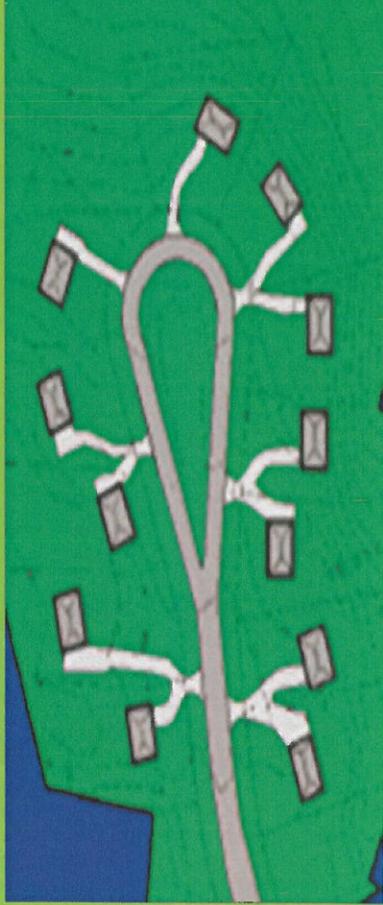
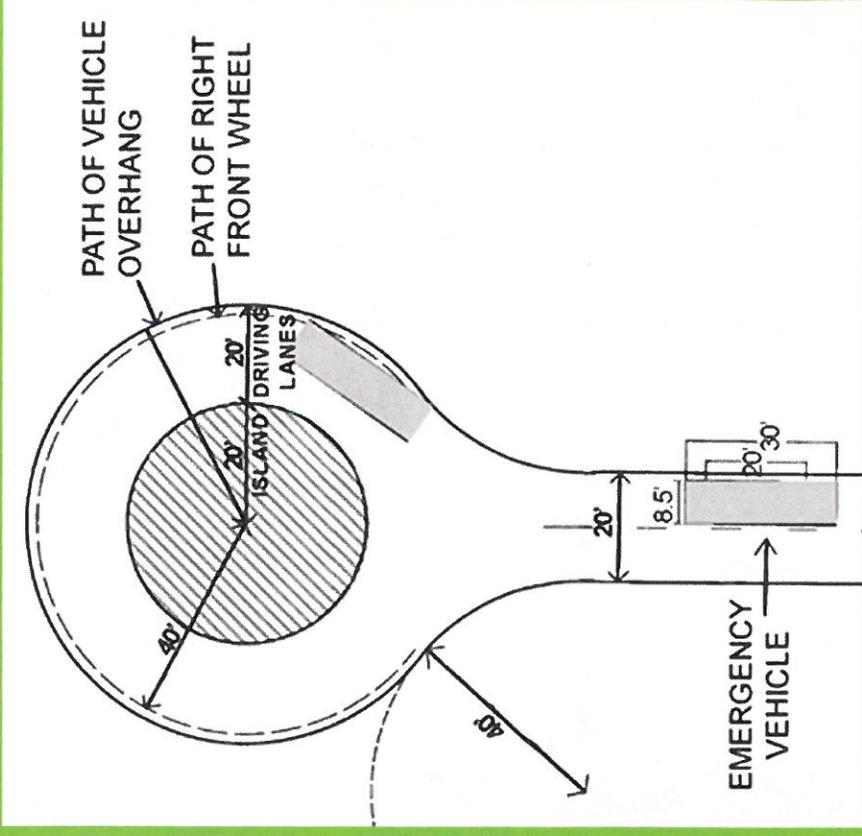


## LID STRATEGIES

# Roadways and Parking Areas

## Alternative Turnarounds

- Smaller cul-de-sacs
- Bioretention islands
- One-way-loops
- Hammerhead turnarounds

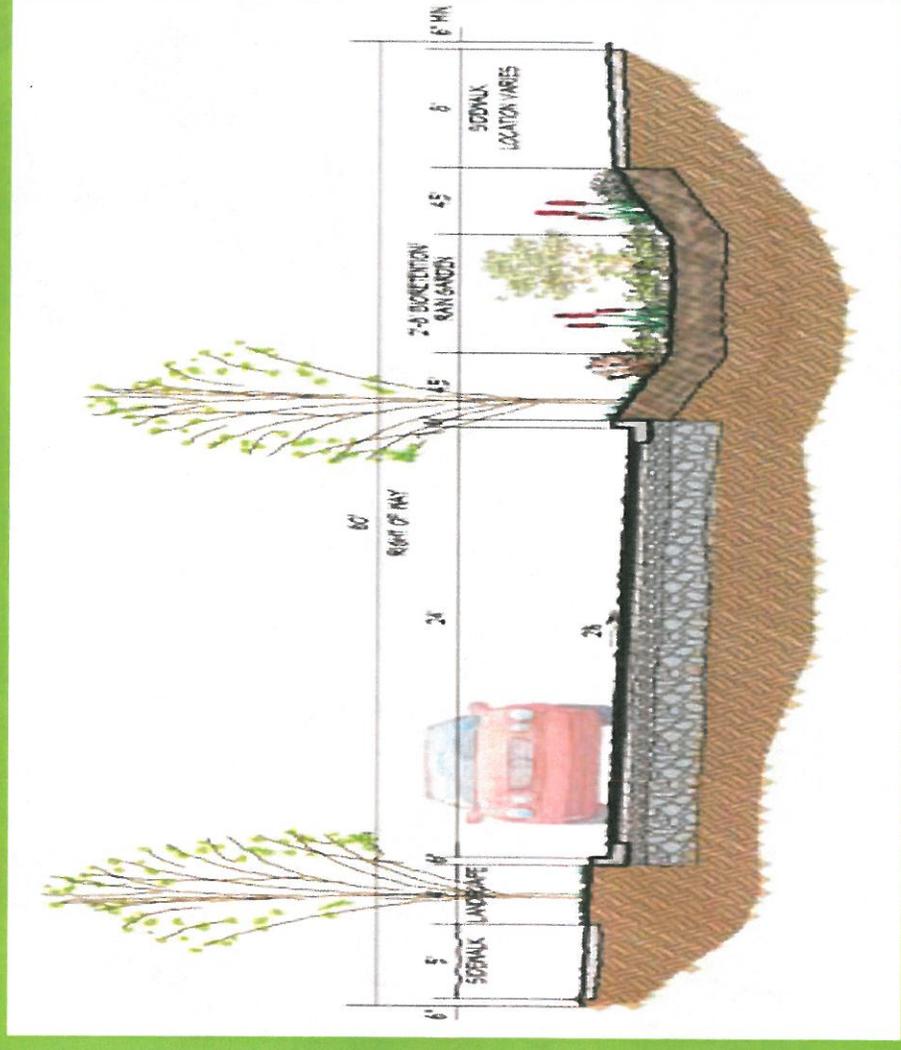


## LID STRATEGIES

# Roadways and Parking Areas

## Road Profile

- Narrower roadways (18-24 feet)
- Permeable parking lanes
- Open section roadways
- Alternative curb designs

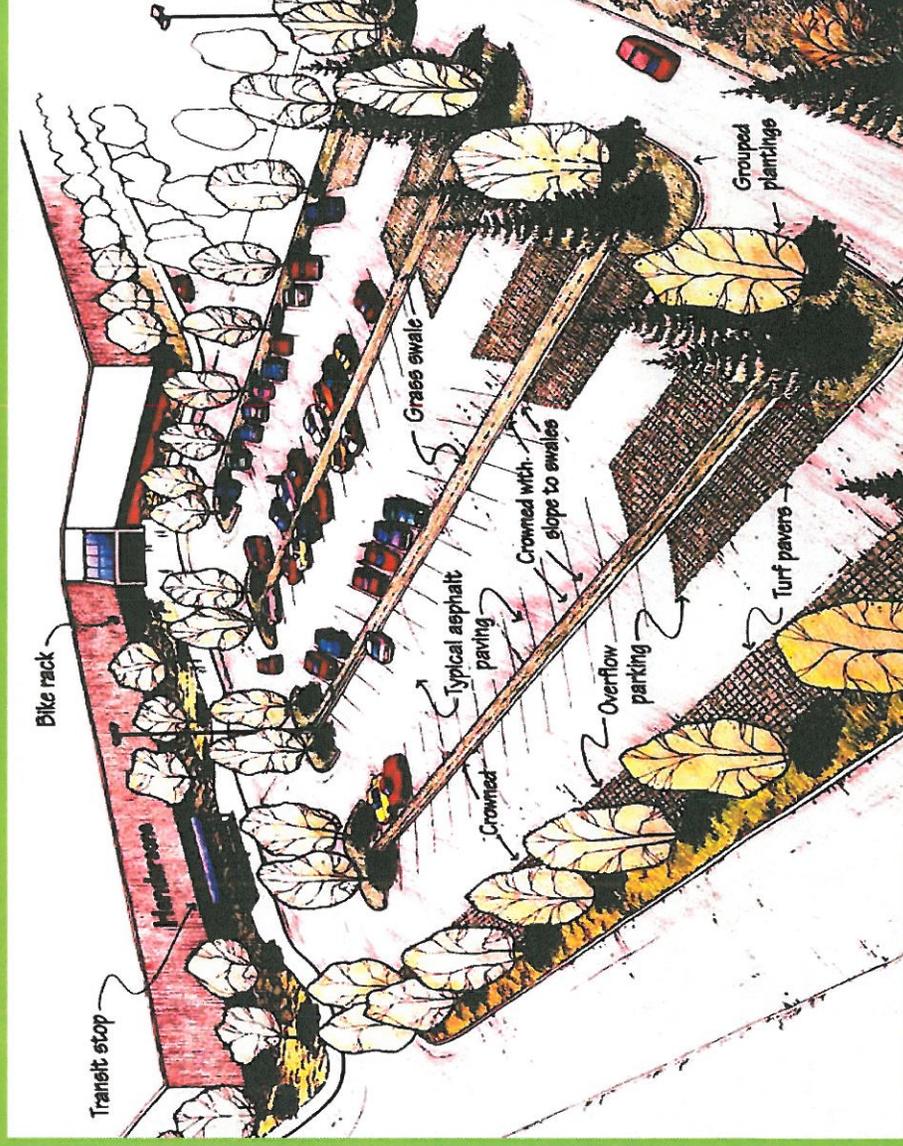


## LID STRATEGIES

# Roadways and Parking Areas

## Parking Lots

- Create multiple small lots
- Allow shared parking
- Require compact spaces
- Set parking maximums

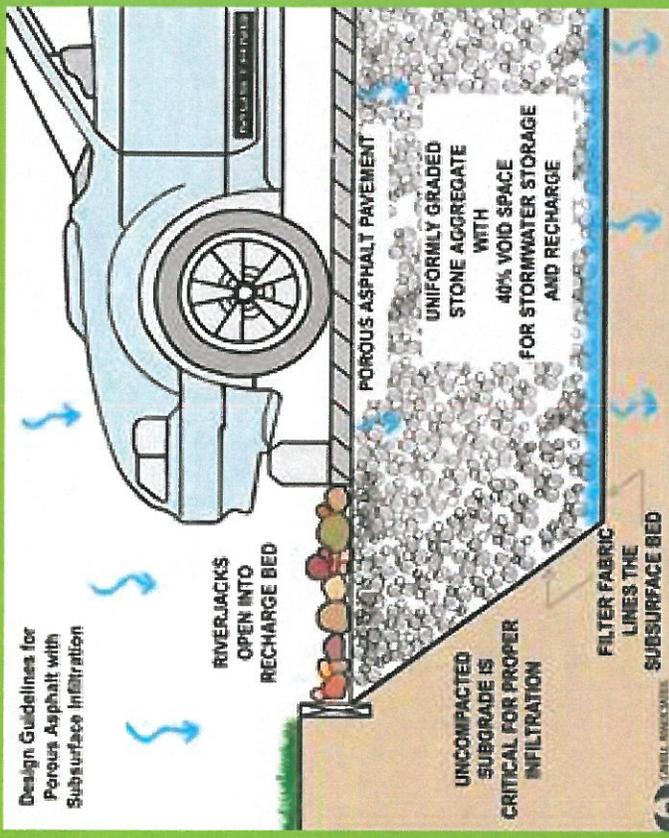


# LID STRATEGIES

## Permeable Paving

### Runoff reduction

- Grass pavers
- Paving stones
- Porous asphalt
- Pervious concrete



## LID STRATEGIES

# Permeable Paving

## Applications

- Parking stalls
- Overflow parking
- Driveways
- Walkways and plazas



# LID STRATEGIES

## Bioretention

### Applications

- Parking lot islands
- Median strips
- Rooftop runoff



# LID STRATEGIES

## Bioretention

### Applications

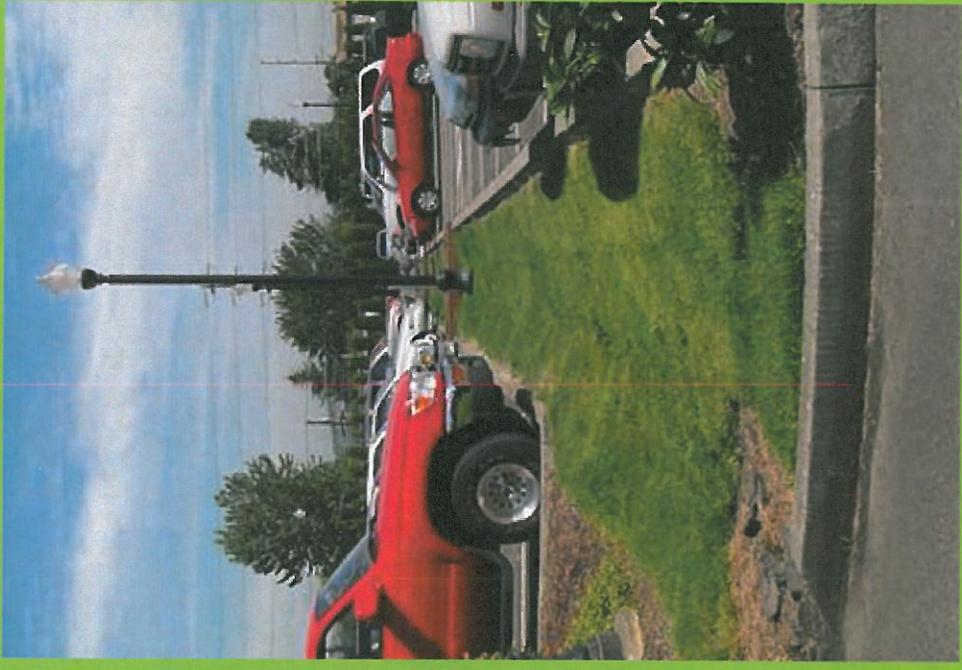
- Urban retrofits
- High-density areas



**LID STRATEGIES**

# **Vegetated Swales**

**Conveyance, treatment, infiltration**



## LID STRATEGIES

# Infiltration Trenches / Dry Wells

## Infiltration and Volume Reduction

- Runoff stored in void space; slowly percolates into the ground
- Excellent for rooftop runoff



## LID STRATEGIES

# Rain Barrels

## Runoff Reduction and Water Conservation

- Downspouts directed to tanks or barrels
- 50 – 50,000 gallons
- Excess diverted to drywell or rain garden
- Landscaping, car washing, other nonpotable uses



**LID STRATEGIES**

# **Rain Barrels and Cisterns**

**Runoff Reduction and Water Conservation**



## LID STRATEGIES

# Green Roof Systems

**Runoff Reduction, Reduce Heating/Cooling Costs**

- Rainwater stored in a lightweight engineered soil
- Hardy, drought-resistant vegetation
- Reduce runoff by 50%



## LID STRATEGIES

# Stormwater Planters

**Runoff Reduction, Treatment, Attenuation**

- "Bioretention in a Box"
- Vegetative uptake of stormwater pollutants
- Pretreatment for suspended solids
- Aesthetically pleasing
- Reduction of peak discharge rate





# LID BENEFITS

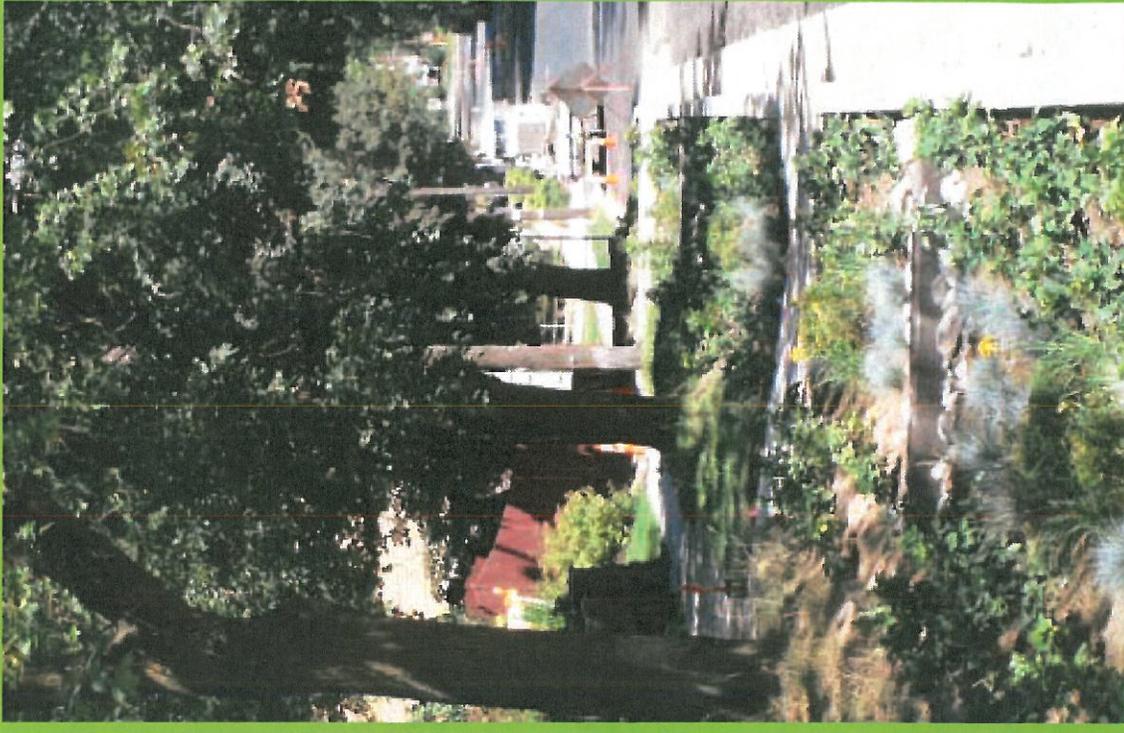
Lower Peak Discharge Rates

Reduced Runoff Volume

Improved Water Quality

Increased Aquifer Recharge

Lower Construction Costs



## LID IMPLEMENTATION

### Important Considerations

- Select appropriate climate techniques
- Ensure adequate emergency access
- Prioritize pedestrian safety
- Define ownership: public, private, mix?
- Require monitoring and inspection
- Assign maintenance responsibilities

## LID IMPLEMENTATION

# Long-Term Maintenance

- All stormwater systems require maintenance
- LID maintenance often simple, low cost
- Homeowner/landscaper education
- Consider requiring permanent sureties

## LID IMPLEMENTATION

### Next Step?

#### Review of Local Codes for Barriers

- Development Code review

Design standards

Subdivision and Regulations

Streets and Parking

## LID IMPLEMENTATION

### Other Considerations

- Reduced Review Time / Expedited Review
- Reduced Application Fees
- Lower Stormwater System Development Fees
- Adjustments to the Required Parking

# LID Development Code Checklist

## *Site Plan Review*

- Does the code allow for the location of bioretention areas, rain gardens, filter-strips, swales, and constructed wetlands in setback areas and in buffer areas?
- Look at setback requirements in residential districts in order to increase flexibility with regard to building location.
- Road design – encourage green streets?
- How much open space is required in residential Subdivisions/PUD's?
- Does the code allow flexible site criteria such as reduced setbacks/smaller lot sizes in Subdivisions/PUD's?
- Does the code allow for LID stormwater management techniques (bioretention, swales, filter strips) on land held in common?
- Does it allow for bioretention areas, filter strips, swales, etc. to count towards fulfillment of site landscaping/open space requirements?
- Does the code allow for flexibility with sidewalk layout?

## *Parking/Street/Streets*

- Does the code allow permeable paving for parking stalls/spillover parking areas?
- Does the code allow for reduction of parking requirements if shared parking is proposed? Does the City provide a shared parking agreement that can be included as part of the deed restrictions/permit requirements?
- Are landscaping requirements for parking areas adequate and flexible to allow for vegetated islands and bioretention?
- Does the code permit the use of common driveways to serve up to 4 houses?
- Should the driveway width be reduced?
- Does the code allow for pervious materials (pavers, asphalt, porous pavers, etc.?) for driveways?
- Any considerations for street layout that includes reducing street length, minimizing total paved area (including cul-de-sacs) with the goals of protecting site hydrology?
- Are there standards that allow for the creation of landscaped islands within cul-de-sacs?

- Are there standards or allowance for permeable paving for sidewalks
- Does the code permit permeable paving for road shoulders/parking lanes in residential neighborhoods, with the use of conventional paving for travel lanes only?
- Are there standards to permit use of one-way loop streets to eliminate turnarounds?

### *Site Work*

- Grading and clearing: are there clearing limits reasonable.
- Does the code require contractors to reestablish soils that have been compacted during construction process? For example, a contractor can rototill lawn areas prior to seeing to re-establish permeability and infiltration of the soil.