



# GRANT ROAD Improvement Plan

Mobility Vitality Sustainability

## Streetscape and Landscape – Development of Water Harvesting Concepts

Opportunities to irrigate Grant Road's landscaping with rain water are being maximized through the design of landscaped areas and roadway. Water harvesting concepts are being developed to capture rain water that falls within the Grant Road right-of-way so it can be directed to landscaped areas to improve the health and vitality of the landscape.

### Passive Water Harvesting

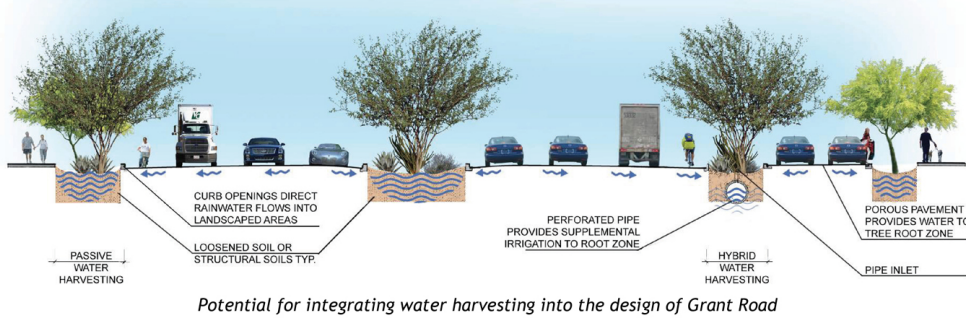
Directing the water that flows off the street to flow into and through landscaped areas.

### Active Water Harvesting

Directing additional runoff to underground or above ground cisterns where it can be used over a longer period for irrigation.

### Hybrid Water Harvesting

Directing water to landscaped areas and capturing excess water in underground structures where it can be more slowly used by the landscape or seep into the groundwater.



- LEGEND**
- **Passive Water Harvesting**
    - Components**
      - Surface flow only
      - Curb cuts to direct water to landscaped areas
      - Grading and contouring to direct and slow water
    - Location**
      - Throughout corridor:
        - Typical roadway sections: median
        - Super Elevated roadway sections: median & high road side
        - Double Crown roadway sections: median & road sides
  - **Active Water Harvesting**
    - Components**
      - Subsurface storage in cisterns for later use
      - Curb cuts direct water to inlets
      - Filtering, pumping, and distribution to irrigation system
    - Location**
      - Locations must meet two requirements:
        - Bottom of the water shed, greatest availability of water to store
        - Adjacent to new storm sewer to collect overflow
  - **Hybrid Water Harvesting**
    - Components**
      - Curb cuts to direct water to inlet
      - Large underground perforated pipe holds water for percolation
      - Subsurface improvements to increase percolation and storage capacity in landscaped areas for prolonged use (more porous subsurface soils)
    - Location**
      - Typical roadway sections: road sides
      - Super Elevated roadway sections: low road side
  - ➔ **Storm Drainage**
    - Most logical location(s) to intercept water from storm drainage flows

### Examples of Water Harvesting Features



**Public Input on Water Harvesting**

**Strong support for water harvesting wherever feasible – “DO IT!”**

