



83rd Avenue/Pinnacle Peak Road Drainage Improvement Project

October 2005

PROJECT DESIGN BULLETIN

The Flood Control District of Maricopa County (District), in partnership with the City of Peoria and the Maricopa County Department of Transportation, is designing drainage improvements for the vicinity of 83rd Avenue/Pinnacle Peak Road. The purpose of this bulletin is to familiarize the public with the project's features and announce an upcoming public information meeting that will be held on Wednesday, November 2, from 6:00 to 7:30 p.m., at the Sunrise Mountain High School North Campus (see back page for further details).

Why is this project needed?

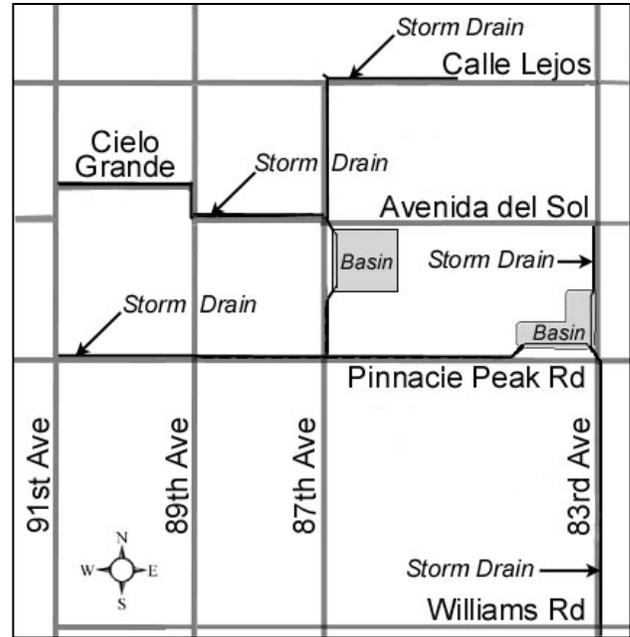
In the area between 83rd and 91st Avenues, storm water runoff drains to the south from the Sunrise Mountains towards Deer Valley Road. However, many of the streets in this area lack a storm drain system. Piecemeal growth has resulted in development without adequate flood control and drainage infrastructure. Consequently, some local properties and area streets have experienced repeated flooding. Over the years, the flooding has caused property damage, erosion, and sedimentation problems, such as sand "islands" forming in roadways.

The project will be designed to mitigate storm water flooding in the area from Calle Lejos to Pinnacle Peak Road between 83rd and 91st Avenues. Storm runoff in this area will be collected and conveyed by drainage pipes to detention basins. Without these improvements, storm water would be expected to continue to cause flooding of the streets and neighborhoods in the area.

What will be built?

The proposed improvements include the construction of detention basins at the northwest corner of 83rd Avenue and Pinnacle Peak Road

VICINITY MAP



and at the southeast corner of Avenida del Sol and 87th Avenue. New storm drains along Calle Lejos, Cielo Grande, Avenida del Sol, Pinnacle Peak Road, 83rd Avenue, 87th Avenue, and 89th Avenue will collect storm water and convey it to the basins via a system of pipes. The collected water will then be discharged at a controlled rate into a storm drain that will direct the water south under 83rd Avenue. The new system ultimately drains into an existing open channel on the east side of 83rd Avenue south of Williams Road.

What will it look like?

The District's aesthetics and open space goal is to enhance the year-round value of its facilities by incorporating features that will preserve the natural landscape, protect and enhance local community character,



improve the aesthetic value of its properties, and provide opportunities for recreation activities. Thus, detention basins are often designed to provide both flood control and recreational uses for adjacent residents. At this time, the District anticipates that the 87th Avenue basin will be designed to accommodate recreational uses. Due to its depth and steep sides, the Pinnacle Peak basin will not be accessible for recreational use.

A Project Aesthetics Advisory Committee (PAAC) that includes local neighborhood residents has been formed to evaluate multi-use opportunities and aesthetics issues specific to the area. The PAAC will meet several times during the course of the design process to review concepts and provide input to the project team.

What has been done so far?

The District began preliminary investigations for the proposed improvements in 2004. This pre-design phase consisted of evaluating possible sites, layouts, and configurations for detention basins, identifying multi-use opportunities and aesthetic issues, and preparing the concept and site development plans. The results of the preliminary phase were presented at a public meeting on November 8, 2004.

Since that time, the District has improved the drainage system's design and expanded the project to provide flood mitigation for a larger area, reaching as far west as 91st Avenue. This was done to provide adequate drainage controls for more residences and properties in the area that have experienced flooding in the past. The changes that have come about in the design are highlighted below (inset). Both the new and previous concepts will be available for viewing at the November 2 public meeting.

How can you participate?

The District is committed to providing a clear understanding of the proposed improvements to the public and to listening to your concerns and suggestions. The upcoming public information meeting will continue the dialogue between the District and the public about the 83rd Avenue/Pinnacle Peak Road Drainage Improvement Project.

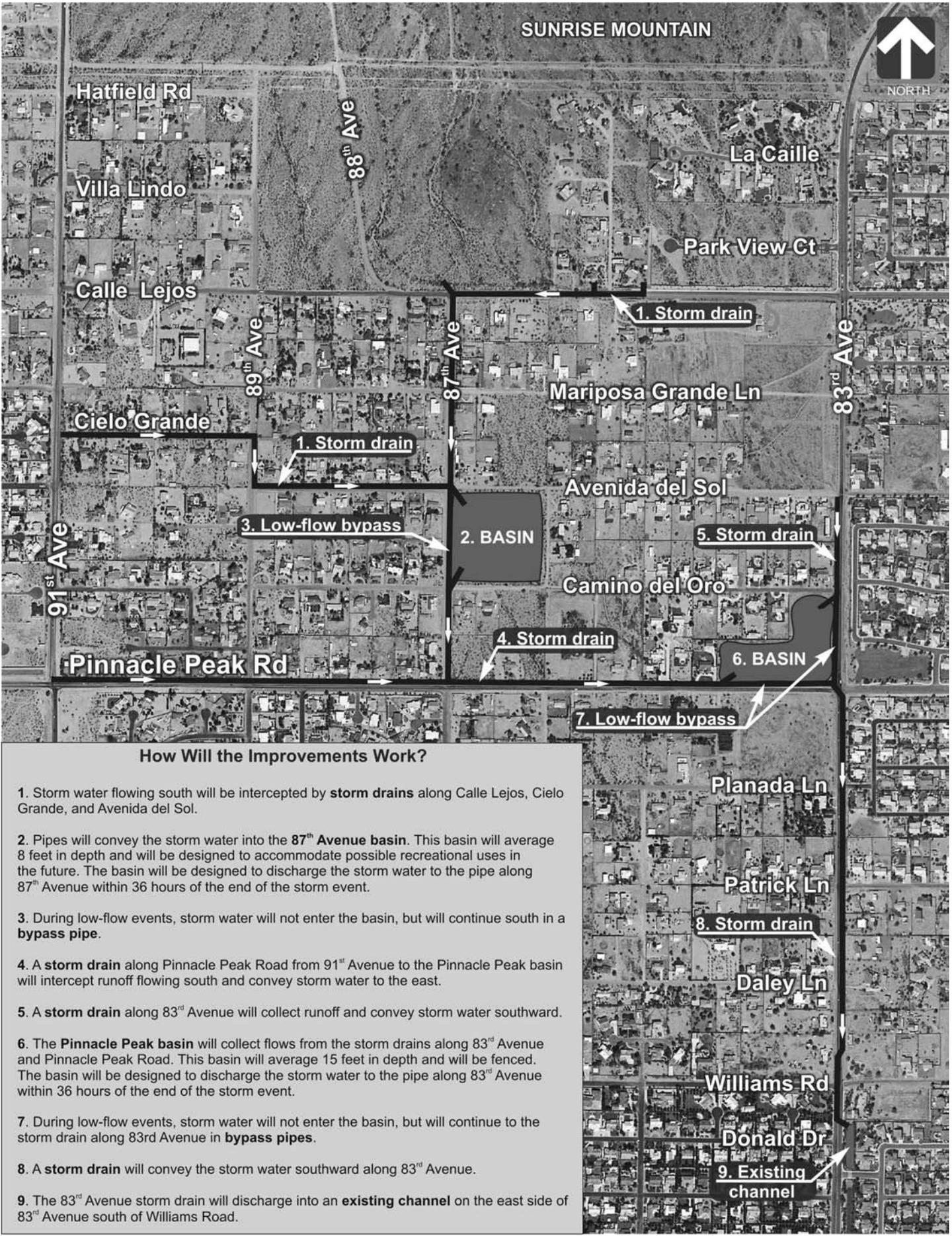
Following the November 2 public meeting, the District will prepare the final design and construction documents, giving full consideration to public input on the preliminary project concepts. A follow-up bulletin and public information meeting are planned for early 2006.

How is the new design different than the original concept?

The project team has investigated several modifications of the previous concept to improve the effectiveness of and increase the area protected by the proposed drainage improvements. The changes include the following:

- The new concept for this project provides flood control protection for a larger area, extending westward to 91st Avenue. With the new concept, storm drains will extend west to 91st Avenue along Cielo Grande, Avenida del Sol, and Pinnacle Peak Road. The previous storm drain concept extended west to 89th Avenue.
- The detention basin originally located north of Calle Lejos east of 87th Avenue has been eliminated and replaced with a basin at the southeast corner of Avenida del Sol and 87th Avenue. The new site has a larger area available for the drainage improvements, increasing its potential detention capacity, and provides a better opportunity for other uses.
- Water collected along Calle Lejos will be transmitted in pipes south along 87th Avenue. Originally, this water was to be conveyed east to the Pinnacle Peak basin in a series of pipes and open channels. However, detailed studies and hydrologic analysis show that the system will function more efficiently with the new configuration.

SUNRISE MOUNTAIN



How Will the Improvements Work?

1. Storm water flowing south will be intercepted by **storm drains** along Calle Lejos, Cielo Grande, and Avenida del Sol.
2. Pipes will convey the storm water into the **87th Avenue basin**. This basin will average 8 feet in depth and will be designed to accommodate possible recreational uses in the future. The basin will be designed to discharge the storm water to the pipe along 87th Avenue within 36 hours of the end of the storm event.
3. During low-flow events, storm water will not enter the basin, but will continue south in a **bypass pipe**.
4. A **storm drain** along Pinnacle Peak Road from 91st Avenue to the Pinnacle Peak basin will intercept runoff flowing south and convey storm water to the east.
5. A **storm drain** along 83rd Avenue will collect runoff and convey storm water southward.
6. The **Pinnacle Peak basin** will collect flows from the storm drains along 83rd Avenue and Pinnacle Peak Road. This basin will average 15 feet in depth and will be fenced. The basin will be designed to discharge the storm water to the pipe along 83rd Avenue within 36 hours of the end of the storm event.
7. During low-flow events, storm water will not enter the basin, but will continue to the storm drain along 83rd Avenue in **bypass pipes**.
8. A **storm drain** will convey the storm water southward along 83rd Avenue.
9. The 83rd Avenue storm drain will discharge into an **existing channel** on the east side of 83rd Avenue south of Williams Road.

Need more information? Contact:

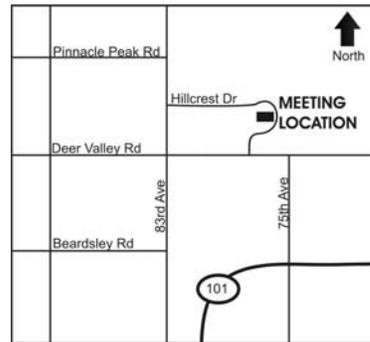
- **Emili Kolevski**, Project Manager
Flood Control District of Maricopa County
2801 West Durango Street
Phoenix, AZ 85009
Phone: 602-506-4486; fax: 602-506-8561
Email: emk@mail.maricopa.gov
- **Burton Charron**, Senior Civil Engineer
City of Peoria Engineering Division
8401 West Monroe Street
Peoria, AZ 85345
Phone: 623-773-7212; fax: 623-773-7211
Email: burtonc@peoriaaz.com
- **Pat Fyie**, Project Manager
Jacobs Civil Inc.
875 West Elliot Road, Suite 201
Tempe, AZ 85284
Phone: 480-763-8616; fax: 480-763-8601
Email: pat.fyie@jacobs.com

Project information is also available on the District's web site: www.fcd.maricopa.gov.

You're invited!

Public Information Meeting

Wed., Nov. 2, 2005, 6:00 to 7:30 p.m.
North Campus of Sunrise Mountain
High School
7877 W. Hillcrest Drive



Please join us at an informational meeting about this project.

A brief presentation will be given at 6:15 followed by an open house.

Jacobs Civil Inc.
Attn: Laura Gerbis
875 West Elliot Road, Suite 201
Tempe, AZ 85284



Inside this Newsletter:

- Public meeting notice
- Important news about the drainage improvement project near 83rd Ave./ Pinnacle Peak Rd.
- Detention basin concepts