

City of Phoenix

Water Services Department



**Innovative Approach of Pooling Public and
Private Funding to Develop a Major Water
Infrastructure Project**

Can Xiao, P.E.

Many Special Thanks

- ❖ **City of Phoenix Manager's Office**
- ❖ **City of Phoenix Water Services Department**
- ❖ **Hines-Arizona Development Office**



City of Phoenix

- The capital city of Arizona
- The fifth largest city in the USA
- More than 1.5 million residents
- More than 500 square miles, geographically exceeding Los Angeles

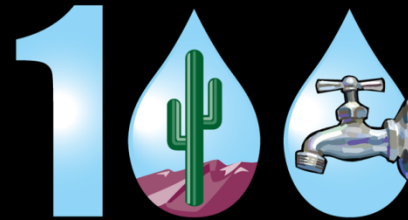


City of Phoenix

- Carl Bertelsmann award for being the best-run city government in the world
- A best-managed city in the country designation by Governing Magazine
- Named an All America City five times by the National Civil League



City of Phoenix Water Services Department (WSD)



A Century of Superior Water Services in Phoenix



Water Services Department

- Provides a reliable supply of drinking water that meets or surpasses all standards for health and safety at a lower cost than most southwest cities
- All waste water is collected and treated in a way that meets all applicable standards, protecting environment



Water Services Department

- 1400 employees provides services to over 1.5 million customers within 540 square mile
- Enterprise department that is free driven and self-supporting



Project History

- Phoenix water system is divided into different water zones based on the geographic elevation
- The upper part of Zone 1 has a higher elevation that makes it difficult to provide adequate water pressure; Zone 2A, which serves the east Camelback area, was used to help manage the water pressure in Zone 1



Project History

- High-rise commercial and residential development along east Camelback Road area pumps water out of zone 2A, thus impacting the water pressure in the upper part of Zone 1
- A long-term water modeling study suggested a new water zone 1A be created to address the water pressure issue in this area.



Benefited Area
1084 Acres
1150 Residential Accounts
198 Commercial Accounts

Camelback Road

Zone
2A

Zone
1

Proposed Zone 1A
3820 Acres
7736 Residential Accounts
898 Commercial Accounts

Proposed Water Infrastructure Improvements
■ Private Development Portion
■ CIP Portion



The Challenge

- Any additional high-rise development along east Camelback Road area will cause inadequate water pressure in Zone 2A and 1, affecting people's daily life such as functioning of shower heads.
- WSD was unable to fund the entire new water zone 1A project in the 5-year Capital Improvement Project (CIP) program
- Water stipulations were added to new high-rise developments in the east Camelback area to build water pressure solution before any building permit can be issued



The Challenge

- **WSD started extensive education effort, including:**
 - **developing a white paper and website with information on the issue,**
 - **meeting with developers to try and form a partnership,**
 - **meeting with village planning committee and local neighborhood and business group, and**
 - **discussing issues with local reporters**



The Joint Partnership

- The City Manager's office initiated partnership meetings with the local development community
- A group of developers that has been actively developing projects along east Camelback Road formed a Developer Consortium and was willing to work with the City to form a Public Private Partnership to build one third of the project



The Joint Partnership

- **The Phoenix City Council approved sufficient funds to build the other two thirds of the project within the next five years**
- **A Development Agreement between the City and the Developer Consortium was executed in July 2008**



The Financing Method



- **The Developer Consortium will fund and construct one third of the project (the red portion on the map). This portion includes 3.5 mile 20 to 42 inch water mains and one 33 million gallon day booster pump station. The total cost was estimated to be 23 million dollars.**



The Financing Method



- **The City will fund and construct the other two-thirds of the project (the blue portion). This portion includes 8.5 miles 36-inch water mains, one 20 million gallon day booster pump station and 6 pressure reducing valves.**



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The Financing Method



- **The Developer Consortium will provide a 14 million dollar Letter of Credit to the City, as a guarantee to complete their portion of the project.**



The Financing Method



- The City will reimburse the Developer Consortium up to 12 million dollars after their portion of the project is completed and accepted by the City. Among the 12 million dollars, 9 million will come out from the water funds. 3 million will come out from the construction sales tax generated by any current or future high-rise developments in the east Camelback area that will benefit from the project.



The Benefits

- The Developer Consortium was allowed to proceed with their developments within the east Camelback Road area without being subject to water stipulations for up to 15 years.
- The City was able to construct the water zone 1A project within a 5-year CIP program without additional cost.
- The long-standing water pressure issue along the east Camelback area will be addressed in a timely manner, promoting commercial and residential economical growth.



Project Status

- The project is projected to be completed in April 2011, nine months ahead of the planned schedule.
- The total project cost is projected to be within 15 million dollars, 8 million dollars below the planned budget.
- A 3-million dollar construction issue was successfully resolved among the project team without litigation.



Lessons Learned

- It takes strong leadership to create a Public Private Partnership (PPP)
- It takes a team effort, open-communication, mutual trust, respect and effort to nurture and develop a true partnership



Conclusions

- PPP is an innovative way to develop infrastructure, especially in today's challenging economy
- PPP provides an opportunity for both public and private sectors to pool together money and resources and utilize them more efficiently
- Tax payers are the ultimate beneficiaries



Legislature in Arizona

- APDM becomes State Law in 2000 under HB 2340. Amendments make it an on-going evolutionary process.
- in 2009, PPP was added to State APDM Law under Title 28(ADOT)
- More work needs be done for Title 34(City) and 41(County).



Questions?

Thank You!

