



Cavalier Hills Alley Rehabilitation

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In 2014, the Solid Waste Section of the former Public Works Department was assigned management of the City's Alley Maintenance Program (AMP). Over the ensuing years, the program was unable to consistently meet the service level expectations of the community due to resource constraints and other contributing factors. In August 2021, the Municipal Utilities Department explored a new, comprehensive approach to alley maintenance in North Tempe's Cavalier Hills neighborhood. This tactic placed emphasis on reconditioning and resurfacing unpaved alleys, while determining the resources needed to recondition 40 miles of alleyway each year, educating the community on its role in maintaining alleys and creating a partnership with the community to improve and maintain Tempe's alley system.



Overgrown vegetation and weeds in a Cavalier Hills alley before rehabilitation.

Tempe's 165 miles of alleys are public rights-of-way that must be maintained to ensure access, ingress and egress for provision of City services such as water, wastewater, police, fire and solid waste. Alleys also serve as utility corridors for both public and private utilities including electricity, gas, cable, water, sewer and stormwater. The Cavalier Hills neighborhood was chosen as the test area for this effort due to the size (1.98 miles) of the associated alleyway system and the number of alley code violations for items such as weeds, overhanging vegetation and illegal dumping, compared to other neighborhoods in the city. This area was deemed "typical" and a good representation of Tempe's overall alleyway system.

The effort started with an aggressive outreach campaign to residential and commercial customers in and around the Cavalier Hills neighborhood. Outreach included postcards, door-to-door communications, Nextdoor posts and communication with neighborhood associations. Next, the team executed abatement and clean-up of the alleys, followed by alley reconditioning and resurfacing. The five-person AMP Team utilized two dump trucks, two water trucks, one skid steer loader and one motor grader. During this project, a third-party contractor assisted with abatement and cleanup, temporary personnel were secured for assistance with reconditioning and resurfacing and rental equipment was

procured to supplement the team's fleet. A temporary location for staging of millings, utilized during resurfacing, was identified and leveraged to reduce transportation time to and from the work site. These resources, along with a prescribed plan of action, facilitated the 1.98 miles of alleyway being abated and resurfaced in five weeks.



Municipal Utilities staff operating the motor grader (above left) and roller (above right), two of the pieces of equipment used to recondition alleys.

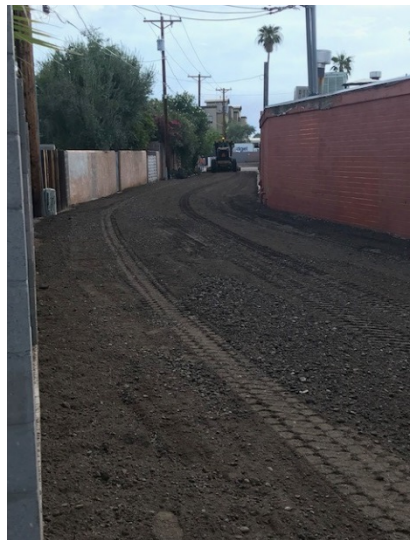
Staff also used the Cavalier Hills Alley Rehabilitation Project to launch the Alley Quality Index (AQI) rating system. Inspired by the City's Engineering and Transportation Department's Pavement Quality Index, AQI will prioritize alleys for maintenance based on objective scoring for the following criteria: surface condition, overgrown vegetation and weeds, graffiti and garbage/debris. The baseline score for alleys in Cavalier Hills before the rehabilitation was "average." Following the rehabilitation project, the AQI score increased to "excellent." This baseline data will be used to categorize each alley as excellent, good, average or poor, and this rating criteria will be used to prioritize alleys for maintenance.

Improving the condition of Tempe alleys is a high priority. With new investment, reorganization and prioritization, the AMP Team has been enabled to execute more preventative and corrective maintenance each year, directly and positively impacting residents' quality of life.

Please see the next page for more before, during and after photographs.



Cavalier Hills Alley before rehabilitation.



Cavalier Hills Alley during and after rehabilitation.