



City of Broken Arrow
Minutes
Drainage Advisory Committee

City Hall
220 S 1st Street
Broken Arrow OK
74012

Chair Lori Hendricks
Vice Chair Denise Mason
Donna Wiedenhour
Amber Hamilton
Donna Wallace
Johnnie Parks
Christi Gillespie

Monday, October 28, 2024

Time 6:00 p.m.

Council Chambers

1. Call to Order

Chair Lori Hendricks called the meeting to order.

2. Roll Call

Present: 7 - Lori Hendricks, Denise Mason, Donna Wiedenhour, Amber Hamilton, Donna Wallace, Johnnie Parks, Christi Gillespie

3. Consideration of Consent Agenda

A. 24-1464 Approval of Drainage Advisory Committee meeting minutes of July 29, 2024

MOTION: Christi Gillespie moved to approve the consent agenda, seconded by Donna Wallace.

Move to approve consent agenda

The motion carried by the following vote:

Aye: 7 - Lori Hendricks, Denise Mason, Donna Wiedenhour, Amber Hamilton, Donna Wallace, Johnnie Parks, Christi Gillespie

4. Consideration of Items Removed from Consent Agenda - NONE

5. Presentations

A. 24-1462 Presentation summarizing the projects and funds spent to date of Proposition 6 of the 2018 General Obligation Bond

Pat Wilson, Stormwater Division Manager of the Engineering and Construction Department, gave an update on the progress and plans for drainage improvements funded by Proposition Six. He reviewed completed projects, current ones, and plans, emphasizing the legal allowance to use bond funds for drainage improvements on private property with a vested public interest marked by permanent easements. So far, 50 projects have been managed: 31 are closed, six are near closure, two are in permitting, three are in construction, and eight are in design.

Mr. Wilson detailed financials, showing how funds are allocated and managed across various drainage basins. Some funds show discrepancies due to project closures and reallocation. He noted about \$700,000 remains of sold funds, with an additional \$2.5 million to be sold in

future fiscal years.

Mr. Wilson recommended looking into more significant projects to utilize the remaining funds effectively, including channel clearing and improvements in specific areas needing structural repairs. He concluded by expressing a commitment to supporting drainage capacity and flow improvements citywide for the benefit of residents.

In further discussion with the Committee, Mr. Wilson explored ways to proactively identify and fund necessary drainage projects, particularly those that protect critical infrastructure and address stormwater issues on private property. The team highlighted several cases where city-initiated projects could be justified, such as repairing culverts or fixing drainage channels that impact public and private property. The concern was raised about spending Proposition Six funds efficiently before proposing future bonds, with the potential for a 2026 bond measure.

Suggestions included proactively identifying problem areas based on insights from engineering and stormwater teams, police, and fire departments, who often encounter flood-prone sites. The team emphasized the importance of community awareness so that property owners know the program. Outreach ideas included leveraging public workshops and city expositions to share information on stormwater solutions and partnerships. This proactive approach aims to expedite the spending of existing funds while aligning with the intent of Proposition Six, ensuring public benefit through these public-private drainage improvements.

Vice-chairperson Denise Mason praised the city of Broken Arrow's progressive approach, especially its willingness to partner with citizens on infrastructure projects, setting it apart from other cities. They emphasized that city officials understand problem areas better than anyone, including older neighborhoods likely to face issues in the future. Highlighting this collaborative approach could be beneficial in publicizing the city's commitment to citizen partnership, as it fosters a better quality of life for residents.

Vice-chairperson Denise Mason suggested using stories, possibly through media coverage, to communicate the city's proactive work, such as before-and-after project outcomes, which can demonstrate Broken Arrow's unique community-focused initiatives. A specific project on Dallas and Fourth was identified for a potential feature story, showing the city's ongoing efforts. This type of storytelling could enhance public understanding of these initiatives and attract positive attention to the city.

6. General Committee Business

A. 24-1465 Consideration, discussion, and possible action to recommend to City Council to expend funds to investigate and design erosion control measures in the Bristol Ponds south detention pond and in the channel between Bristol Ponds and Elm Place (Case No 24-016)

Mr. Wilson presented a potential public-private drainage improvement project near 91st and Elm Place, involving the city's stormwater system near a Big Lots store and the adjacent Bristol Ponds subdivision. He outlined the flow path where stormwater travels from Elm Place through a city-owned concrete channel into a pond on private property. The concrete channel requires maintenance due to erosion and breakage.

Mr. Wilson noted that the high velocity of stormwater (13.2 feet per second) erodes the banks, whereas a safe flow velocity should be below 6 feet per second. An investigation revealed that a developer had not installed required energy dissipators, resulting in higher-than-expected water velocity.

The project proposes a partnership with the Homeowners Association (HOA) to stabilize the

channel and pond bank, aiming to reduce the flow velocity and ensure proper drainage capacity. Since the area is outside a regulatory floodplain, permitting would be handled by the city, not federal agencies. Wilson recommended that the committee approve \$50,000 for the project's design phase and welcomed questions.

In this discussion, committee members and city staff discussed a proposed drainage improvement project involving a detention pond and drainage channel near Big Lots and Arvest Bank on Elm Place. This project aims to reduce stormwater velocity and prevent erosion in a concrete channel leading to Bristol Ponds. Staff clarified that the original developer had not installed energy dissipators as required, but limitations on liability prevented action against the developer due to the project's completion in 2005. Today, the city has stricter oversight processes for similar projects.

Committee members emphasized the importance of ensuring developers follow through on drainage and infrastructure requirements and suggested potentially implementing a point or tracking system for developers. The group agreed that this project could benefit from energy dissipators to effectively manage water flow, with design funding sought before requesting construction funds. The city will address additional design features and assess costs in the following stages, ensuring compliance and enhancing drainage capacity in the area.

Patty Pitcock, a citizen, expressed gratitude to the city for their responsiveness and commitment to addressing stormwater issues. As a former educator and administrator, they took the initiative to research and document the problem, using the city's resources, such as the website and the Click Fix platform, to report it. They noted that while many residents bring issues to light, fewer are willing to partner to resolve them. Living near the pond, they had observed an increase in erosion over the past two years, with large chunks of land eroding, which indicated an issue beyond natural erosion.

The citizen commended Patrick from the city's team for understanding the situation's severity and knowing precisely what to investigate. They felt reassured by the city's expertise and thorough approach. Additionally, they appreciated the committee's dedication to the "spirit of intent" in their work and joked about becoming knowledgeable on energy dissipators through their research. They concluded by emphasizing the importance of having skilled professionals to address complex issues like these.

Ms. Pitcock, a longtime resident of Broken Arrow since 1977 and a current homeowner in Bristol Ponds, shared her support and appreciation for the city's efforts on stormwater management. They humorously noted their decision to move to a more manageable property, anticipating future needs as they and their spouse age. Acknowledging the city's need to prioritize projects, they understood their issue might not be top priority. However, they emphasized their willingness and other homeowners' willingness to support the city's efforts, especially if initial design and investigation lead to further actions. They concluded with gratitude for the hard work of the board members, appreciating their dedication to community issues.

Lori Hendricks, Chair, emphasized the importance of clearly communicating the public benefit of this stormwater project. The public benefit lies in maintaining a consistent stormwater flow through the channel and pond, preventing public and private property issues. The city owns the incoming and outgoing parcels of the stormwater system, ensuring continuity in managing water flow and minimizing potential flooding or erosion impacts on nearby properties.

MOTION: Christi Gillespie motioned to expend funds for Case No 24-016, seconded by Donna Wiedenhour.

Move to approve Case No 24-016.

The motion carried by the following vote:

Aye: 7 -

Lori Hendricks, Denise Mason, Donna Wiedenhour, Amber Hamilton, Donna Wallace, Johnnie Parks, Christi Gillespie

B. 24-1466 Consideration, discussion, and possible action to recommend to City Council to expend funds to construct erosion mitigation and repair the leaking pond spillway at Shenandoah Valley at Battle Creek (Case No 24-015)

Pat Wilson, Stormwater Division Manager of the Engineering and Construction Department, reviewed a case initially presented in August 2022, which involved studying a leaking spillway at a detention pond between the Extended Doe Valley subdivisions. The study, funded by the city, aimed to address erosion and protect a nearby 10-inch sanitary sewer line. Since then, the Property Owners Association (POA) hired an engineering firm to create construction plans, completed in September 2024, that propose a polyurethane injection to seal the spillway and prevent leakage.

The project location is east of Aspen Avenue and north of Omaha, near Battle Creek Golf Course. Photos showed saturated ground around the spillway, visible water seepage through concrete, and proximity to the golf course's cart path. Protecting the sewer line is a crucial public benefit, ensuring the infrastructure remains safe from water damage.

City staff recommended the committee approve a \$45,000 expenditure for erosion control and spillway repairs. This amount includes contingency but will not be disclosed publicly to ensure fair bidding. The committee was invited to ask questions regarding the proposal.

Mr. Wilson and the committee discussed the proposed \$45,000 mitigation project for the leaking spillway and its broader impacts, including protection of the sewer line and the cart path on the publicly owned Battle Creek Golf Course. While the ideal long-term solution would be completely removing and replacing the spillway, this would cost around half a million dollars. Instead, the proposed repair uses a pressure injection system with state-specified materials, which provides a middle-ground solution, though the exact lifespan is uncertain.

The committee noted that if this mitigation were to fail, costs to repair the sewer line alone would likely exceed \$45,000, especially considering excavation and spillway protection requirements. They emphasized the importance of maintaining the golf course's path and the sewer line. They supported proceeding with the mitigation measure as a cost-effective way to protect city assets.

MOTION: Johnny Parks motioned to approve Case No 24-015, seconded by Denise Mason. Move to approve Case No. 24-015.

The motion carried by the following vote:

Aye: 7 -

Lori Hendricks, Denise Mason, Donna Wiedenhour, Amber Hamilton, Donna Wallace, Johnnie Parks, Christi Gillespie

C. 24-1469 Consideration, discussion, and possible action to recommend to City Council to expend funds to design improvements to the retaining wall holding back a private pond on Aspen Avenue between New Orleans Street and Florence Avenue (Case No. 24-014)

Mr. Wilson presented a case for addressing a retaining wall issue adjacent to a private pond near Aspen Avenue, approximately half a mile south of New Orleans. The pond itself is private property and dates back to at least 1955. However, when Aspen Avenue was widened in 2008, a public retaining wall was built within the city's right of way to accommodate the pond. The wall now faces problems, with water and sediment seeping through and spilling onto the sidewalk and street, creating hazards and adding sediment to the drainage system.

Additionally, a 12-inch city water line runs parallel to the retaining wall.

Photos showed the seepage, sediment accumulation, and erosion at the wall, as well as evidence of a nearby sheet pile wall and slope movement toward the pond. In this project, the city's public benefit is keeping the sidewalk and road clear of sediment and water to maintain safety and prevent further infrastructure deterioration.

Mr. Wilson recommended a \$100,000 budget for investigating the cause and a design for mitigation. Although structural engineering costs are currently high, any unused funds will be returned to the project budget. The committee was invited to ask questions.

Mr. Wilson and the committee discussed the complexities of addressing a retaining wall issue near a private pond adjacent to Aspen Avenue. While multiple property owners privately own the pond, the city is responsible for installing a retaining wall during a road expansion in 2008. This wall has been prone to leakage, causing water and sediment to flow onto the sidewalk and road, which could become hazardous, especially in winter.

The pond is part of a system that flows into Aspen Creek through the city's storm sewer. The committee considered possible solutions, including lowering the water level to reduce pressure on the retaining wall. However, the private property owners who control the pond level denied the city's request to drop the pond's outfall, limiting options. Additionally, water pressure behind the wall remains high, with a sheet pile installed temporarily during construction in 2008 as a stopgap.

Committee members suggested further evaluation, potentially including a drainage system behind the wall to redirect water. The proposed \$100,000 for investigation would enable the city to explore options with structural engineers to address the seepage and reduce wall pressure. However, the final solution may require complex coordination with multiple property owners.

MOTION: Christi Gillespie motioned to approve \$100,000 in design costs, seconded by Amber Hamilton.

Move to approve the expenditure.

The motion carried by the following vote:

Aye: 7 - Lori Hendricks, Denise Mason, Donna Wiedenhour, Amber Hamilton, Donna Wallace, Johnnie Parks, Christi Gillespie

7. Adjournment

MOTION: A motion was made to adjourn and seconded.

Move to adjourn.

The motion carried by the following vote:

Aye: 7 - Lori Hendricks, Denise Mason, Donna Wiedenhour, Amber Hamilton, Donna Wallace, Johnnie Parks, Christi Gillespie

Chairperson

Deputy City Clerk