



## City of Broken Arrow

City of Broken Arrow  
220 S 1st Street  
Broken Arrow OK  
74012

### Minutes Drainage Advisory Committee

*Chairperson Mary Ann Colston*  
*Vice Chairperson Lori Hendricks*  
*Member Craig Thurmond*  
*Member Johnnie Parks*  
*Member Donna Wallace*  
*Member Jason Featherngill*  
*Member Denise Mason*

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<b>Monday, March 29, 2021</b>	<b>6:00 PM</b>	<b>Council Chambers</b>
		<b>220 S. 1st St.</b>
		<b>Broken Arrow, OK 74012</b>

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#### 1. Call to Order

Chairperson Mary Ann Colston called the meeting to order at approximately 6:00 p.m.

#### 2. Roll Call

**Present: 7 -** Mary Ann Colston, Lori Hendricks, Denise Mason, Jason Featherngill, Donna Wallace, Johnnie Parks, Craig Thurmond (Denise Mason and Jason Featherngill joined at 6:02 p.m. via videoconference after some technical difficulties)

#### 3. Presentations

There were no presentations.

#### 4. General Committee Business

**A. 21-331 Approval of Amended Drainage Advisory Committee meeting minutes of September 28, 2020**

Chairperson Mary Ann Colston asked if there was any discussion; there was none.

MOTION: A motion was made by Lori Hendricks, seconded by Craig Thurmond.

**Move to approve Item 4A**

The motion carried by the following vote:

**Aye: 7 -** Mary Ann Colston, Lori Hendricks, Johnnie Parks, Craig Thurmond, Donna Wallace, Denise Mason, Jason Featherngill

**B. 21-431 Approval of Drainage Advisory Committee meeting minutes of February 22, 2021**

Chairperson Mary Ann Colston asked if there was any discussion.

Committee Member Craig Thurmond commented he was not present for this meeting.

MOTION: A motion was made by Mary Ann Colston, seconded by Johnnie Parks.

**Move to approve Item 4B**

The motion carried by the following vote:

**Aye: 4 -** Mary Ann Colston, Lori Hendricks, Johnnie Parks, Donna Wallace  
**Abstain: 3 -** Craig Thurmond, Denise Mason, Jason Featherngill

**C. 21-430 Consideration, discussion, and possible action to recommend to Council to reject Pembroke Park's request for additional funds for construction of erosion control items**

**on a private pond. (Case 21-002)**

Stormwater Division Manager Patrick Wilson reported on March 16, 2021 Pembroke Park made a request to City Council for the opportunity to make a presentation to the Drainage Advisory Committee describing their request for additional funds to address erosion of the creek wall leading to the pond in the private park. He noted City Council indefinitely tabled the agenda item and requested the Drainage Advisory Committee hear Pembroke Park's request. He reported erosion occurred on the west bank of the East Branch of Haikey Creek at Pembroke Park pond; this may have been caused by undermining of a large tree that fell into the creek and forced high waters into the west bank at this section. He stated on October 28, 2019, the Drainage Advisory Committee approved \$10,000 dollars for tree removal and riprap; City Council approved these funds on November 18, 2019. He reported tree removal was completed at a cost of \$3,000 dollars, leaving \$7,000 dollars remaining for riprap. He displayed photos of the area before and after the tree removal. He stated the Pembroke Park Homeowners Association hired Keithline Engineering Group, PLLC, to design a set of construction documents for erosion control at the pond; the plans were scheduled to open February 15, 2021. He explained the construction cost estimate was \$31,355 dollars. He stated the portion of the project associated with the riprap was \$15,770 dollars. He indicated Pembroke Park was requesting additional funds for the construction of the erosion control. He displayed and discussed a photo of the channel and the pond. He displayed and discussed an overhead view of the pond and channel. He displayed and discussed a slide which illustrated the proposed project which included rip rap, Geotech fabric, and rip rap anchors. He stated Staff evaluated the construction plans prepared by the Keithline Engineering Group for the improvements to its pond. He noted a floodplain development permit and a stormwater development permit on January 28, 2021 which indicated the construction plans were in conformance with City policy, City design criteria manual, and City Ordinance. He stated since the pond provided little to no benefit to the public, additional funds from the City to address the private pond was not recommended. He stated in Staff's opinion, the original approval was sufficient and maximized what would be considered an overall public improvement. He stated Staff recommended rejecting Pembroke Park's request for additional funds.

Council Member Parks noted the water probably flowed quickly through the channel when it rained. He stated he wondered how long the existing embankment would last. He asked if there was a turn in the channel in this area.

Mr. Wilson responded in the affirmative. He explained the channel came from a culvert underneath Olive and went around the pond. He indicated the channel had run around this pond since the 1950s; this was a natural spring fed pond. He noted the water flow rate could increase based on the rain event.

Council Member Parks asked about the erosion.

Mr. Wilson discussed the location of the erosion which was being addressed. He pointed out the location on the map (middle of the pond on the right side).

Committee Member Denise Mason asked if there were any concern about erosion towards the pond in any other locations. Mr. Wilson responded in the negative.

Chairperson Colston asked if the erosion was caused by the downed tree.

Mr. Wilson responded he believed the erosion began prior to the downed tree but was probably minimal. He stated when the tree fell the erosion increased as a result of the water trying to go around the tree.

Committee Member Mason asked about the private pond elevation and what would happen if the embankment broke.

Mr. Wilson responded the water surface elevation of the pond was much higher than the creek and was fed by an underground source. He noted not much runoff went into the pond. He stated if the embankment were breached, the water from the pond would enter into the east branch of Haikey Creek and a new channel would cut through the top over time.

Chairperson Colston asked about the Geotech fabric.

Mr. Wilson explained Geotech was a permeable fabric and was designed to mitigate erosion and helped spread out the pressure of the rip rap and keep everything in place.

Chairperson Colston asked if there were any other questions of Staff; there were none.

Citizen Jim Jones stated his address was 3800 W. Boston Street. He indicated he represented the Pembroke Park addition. He played a video of the pond area. He discussed why he felt he should be permitted to make his Power Point presentation to the DAC. He thanked Broken Arrow Staff, DAC, and City Council for approving the \$10,000 dollars in funds to assist in repair of the channel erosion. He played a video which explained why the Pembroke Pines HOA was requesting additional funds including a google earth picture from 2017 showing the tree which had fallen, the erosion along the channel bank which reached up to the fencing along the pond area, the very steep drop along the fence line, and the tree which caused the water to create a route around the tree and closer to the fence line. He displayed and discussed a 2016 google earth image showing the tree upright and 2017 Google Earth image showing the tree fallen. He displayed and discussed photos from the April 2017 flooding event in the area. He played a couple of videos of the tree being removed from the channel. He discussed the reasons he was back before the DAC requesting additional funds be approved. He noted Mr. Schwab had indicated the DAC could recommend additional funds for rip rap. He stated Vice Chairperson Hendricks had questioned whether \$10,000 dollars was enough to cover rip rap and Mr. Schwab had indicated the DAC could recommend additional funds if it wished. He played a clip of the previous DAC meeting in which Mr. Schwab had indicated the DAC had the right to recommend additional funds if it wished. He noted Mr. Schwab had encouraged him to make his presentation to the DAC. He indicated the Pembroke Park HOA had complied with the DAC and Staff request to obtain an engineer's cost estimate. He reviewed a comparison analysis between the Broken Arrow projected cost estimate versus the engineer's cost estimate noting the engineer's cost estimate was approximately \$31,000 dollars while the Broken Arrow cost estimate was over \$400,000 dollars. He noted Pembroke Park HOA opened bids for this project, one was received, and this bid came in at approximately \$29,000 dollars. He explained the cost of hiring Keithline Engineering (\$5,300 dollars), plus the job cost (\$29,303 dollars), minus the remaining \$7,000 dollars in 2018 GO funds equaled \$27,603 dollars.

Mr. Schwab asked what the bid opening date was. Vice Chairperson Hendricks asked if February 15, 2021 was correct.

Committee Member Mason asked what the "apples to apples" comparison was between the Keithline Engineering estimate and the Broken Arrow Staff project estimate. She noted it seemed as if the Broken Arrow estimate included such things as road widening which were not included in the Keithline Engineering estimate.

Mr. Schwab indicated when the request for funds initially came in, Staff was unsure exactly how the Pembroke Park HOA wished the problem to be addressed, either with rip rap or a flood wall. He indicated Staff estimated the cost of a flood retaining wall approach. He

explained the cost comparison between the two estimates was not “apples to apples” it was “apples to oranges.” He stated rip rap was a better way of going for cost, but without an engineered solution, Staff was not willing to say rip rap would definitely solve the problem. He indicated he did not know what the roadway was which Committee Member Mason mentioned.

Committee Member Mason asked about Corp of Engineer permits and jurisdictional issues. Mr. Schwab indicated Dan Keithline was a very good engineer and would have checked to see if Corp permits were needed. He stated he would have to ask Mr. Keithline whether there any jurisdictional issues.

Mr. Jones indicated the bid was opened in January 2021. He displayed a copy of the invoice from the Engineer. He displayed and discussed the Engineering plan which included construction of a bank toe, woven geotextile, and a bench feature to support the upper rip rap. He discussed the importance of supporting the rip rap. He stated the design also included two chain link mats, type 1 plain rip rap, overlapping geotextile fabric by 2 feet, and Gripple Badger anchoring. He further discussed the design plan and why certain aspects were necessary and beneficial. He played a video which demonstrated the Gripple Badger. He discussed how the Gripple Badger worked. He displayed and discussed a photo of rip rap which failed. He asked if there were any questions about how to place geotextile fabric with rip rap; there were none. He indicated he had an instruction guide available. He displayed and discussed the Keithline topographical assessment. He discussed the decrease in the water level of the pond caused by a leak in the pond structure which needed repair. He played a video which showed the pond, turtles, fish, ducks, and Mr. Jones’s dog. He played a news clip which discussed how the City of Broken Arrow assisted Pembroke Park by providing GO 2018 bond money to remove the tree and help with rip rap. He displayed photos of individuals who caught fish in the pond. He played videos of the flooding in 2020 in the pond/channel area.

Chairperson Colston asked if the west side of the pond was located within the flood plain. Mr. Jones responded in the affirmative. He continued to play video illustrating the flooding in the area, and a video of the normal channel flow.

Committee Member Parks asked what exactly Mr. Jones was asking of the DAC.

Mr. Jones stated Staff indicated Haikey Creek did not cause the pond erosion. He stated the flow of the water coming through the creek undercut the tree which fell and caused the erosion towards the pond. He stated the Rushbrooke addition had not always existed. He discussed stormwater noting stormwater through Haikey Creek increased significantly following the construction of Rushbrooke which he believed caused the tree to be undercut and fall. He discussed erosion and obstructions in other parts of Haikey Creek. He stated it was now too dangerous to allow children to play in the creek as he did as a child.

Chairperson Colston agreed and indicated it was not just Haikey Creek which was dangerous, Adams creek was dangerous as well.

Mr. Jones asked if there had been a study of Haikey Creek near his home. Mr. Schwab stated to his knowledge the last studies of Haikey Creek were done by the Corp. of Engineers in the early to mid-1980s.

Council Member Parks stated he walked Haikey Creek and there was a lot of erosion, but it was naturally going to erode, as would Adams Creek. He stated he made the comment that maybe in the next bond issue the Creek systems should be considered. He stated new subdivisions would not allow more water runoff any faster than prior to development. He

stated subdivisions were required to have detention areas to slow the amount of water which flowed off the property.

Mr. Schwab agreed. He stated the City of Broken Arrow adopted stormwater management standards dating back to the 1980s, so any subdivision constructed after this time was required to have onsite detention. He indicated Rushbrooke had a detention area.

Committee Member Mason asked about the location of the detention area in Rushbrooke. Mr. Schwab confirmed the location. Committee Member Mason stated she believed the more development which occurred, the more stormwater runoff there was. She stated she understood the City's position and the standards which were in place. She asked if the detention areas were sufficient to hold the extra water which came in during storm events. She commented maybe these storm events which had been occurring since 2015 were anomalies. She stated she understood the pond in the Pembroke Park subdivision was purely for the residents of Pembroke Park. She asked how much the Pembroke Park HOA was willing to commit to a partnership with the City.

Mr. Jones stated he did not understand the question. Mr. John Harris, President of the Pembroke HOA, stated he believed Committee Member Mason was asking how much money the HOA was contributing to this project. He responded there were funds allocated, and the HOA had expected to pay \$4,300 dollars for the Engineering Report. He stated at the beginning the HOA had expected to pay around \$10,000 dollars for some rip rap, but after the Engineer's report came in the numbers ballooned. He stated the Pembroke HOA hoped the City could provide some additional funding. He indicated at this point the HOA had approximately \$10,000 dollars allocated for rip rap. He noted the HOA still collected fees, but it would take a long time to collect enough fees to cover this expense. He indicated the wall was about to collapse. He stated the HOA hoped the City would provide additional funds to enable the HOA to get the embankment repaired properly as soon as possible so as not to have this difficulty again in the future.

Chairperson Colston asked if this answered Committee Member Mason's question.

Committee Member Mason responded in the affirmative. She asked if any other options available to the HOA had been considered. She stated she understood the frustrations and challenges faced by an HOA. She asked if the HOA had considered a special assessment to get the issue addressed. She stated she was grateful to the City of Broken Arrow which was in a precarious position in terms of telling any developer or property owner what could or could not be constructed. She asked if the HOA considered the option of a special assessment to cover the additional \$15,000 dollars.

Mr. Harris responded in the negative. He stated the HOA wanted to approach the City first about possible extra funding. He stated the HOA was close to where it needed to be, the contractor was ready to begin, and this situation needed to be addressed immediately. He stated worst case scenario the HOA would have to cut back on lawn maintenance along 129<sup>th</sup> Street, shut down the sprinklers, and make other cutbacks.

Committee Member Mason suggested the possibility of raising HOA fees or issuing a one-time assessment to address the situation at hand.

Mr. Harris responded in the affirmative; however, it was difficult to get the full HOA quorum needed to approve a special assessment.

Chairperson Colston stated she was thinking along the same lines. She noted her HOA just reviewed its budget. She stated she calculated if it were a \$15,000 dollar difference, spread

out between the 241 homes in Pembroke Park, a one-time special assessment would equal \$62 dollars per home.

Committee Member Mason agreed. She noted her HOA had to consider similar special assessments. She stated she served as President of her HOA for a number of years, and it was not a fun position; however, a one-time \$62 dollar assessment, if the residents truly believed in the benefit of the pond, should be fairly easy to get approved. She explained the City had an obligation to enforce Proposition 6 as it was written which indicated there had to be a direct positive impact on City infrastructure through funds spent on a public/private partnership. She stated she understood the position of Mr. Jones and Mr. Harris, and she understood this situation very much needed to be addressed. She stated she was grateful for the implementation of Proposition 6 which provided an opportunity to have a partnership approach to these types of problems. She stated it was important to look long term and while Proposition 6 was excellent, and the possibility of a Proposition 6.2 could be considered in the future with more long-term views, the property owners along the creeks in Broken Arrow should take ownership of the property.

Mr. Harris stated Pembroke HOA was back before the DAC per the direction of Staff. He stated the Engineer's estimate was presented for the DAC's review and any help the DAC could provide would be appreciated. He stated he did not expect the City to pay for this entire project. He thanked the DAC for listening.

Committee Member Parks stated he did not question the condition of Haikey Creek, Adams Creek, and others. He stated he believed more money needed to be spent in these creeks. He stated, however, as he understood, the city had provided \$10,000 dollars in funds, of which \$3,000 had been spent, leaving \$7,000 dollars for the HOA to spend as needed on this project. He stated he believed City Council would question the legality of the public and private partnership in this as it was a private pond. He stated he felt the public benefit was in clearing the tree out of the creek, for which he approved the funds, but to spend funds on the dam itself he felt would not be in alignment with the guidelines of Proposition 6.

Mr. Schwab stated the design submitted by Keithline was approved by the City. He stated the City understood Haikey Creek was a culprit in the situation. He stated State Constitution Article 10, Section 26, allowed municipalities to spend taxpayer money on property which the City owned exclusively or in part. He stated Bond Counsel concluded an easement met this requirement. He explained Proposition 6 was separate and the DAC was set up to ensure the City was identifying projects (which the citizens of Broken Arrow had an opportunity to present) with an overall public benefit. He stated when it was decided to bring \$10,000 before this Committee there was a public benefit from the tree removal. He explained the creek was located on private property; the City had no ownership of the creek or the property; however, the tree crossing the creek blocked the flow of the creek back through the culvert on Olive. He stated when water was being reduced through a culvert the capacity of the culvert was being reduced which could cause flood plains up stream to rise; therefore, removal of the tree to allow the flow of water to resume would be of public benefit. He stated the Pembroke HOA was permitted to use the excess money so long as the project was bid through the competitive bid act. He stated increasing the amount given to the Pembroke HOA raised the question of public benefit.

Mr. Jones asked how much it would cost the City to evaluate Haikey Creek and assess the trees which had fallen across the Creek. He stated there were many trees which were on the verge of falling into the Creek. He indicated waiting until the bond issue of 2028 might be too long of a wait. He asked if the Creek could be assessed to determine if the Creek would be a problem in the near or distant future.

Mr. Schwab responded approximately 85% of the creeks in Broken Arrow were owned by private property owners. He explained the burden to remove the debris from the creeks fell upon the property owners. He stated in this case, the DAC, along with Staff's recommendation, saw that since this was only a few hundred feet downstream of the culvert it would be a public benefit to assist in the tree removal. He noted Staff did not see any additional benefit to the public in further funding which was why Staff recommended the rejection.

Mr. Harris stated he understood. He explained Pembroke Park wanted to rebuild the creek bank properly to prevent future problems. He noted the area flooded regularly. He thanked the DAC and Staff.

Vice Chairperson Hendricks thanked Mr. Jones and Mr. Harris. She stated she understood Mr. Jones' and Mr. Harris' position; however, Staff was correct, this was not a case of imminent danger to the public or infrastructure. She explained as this was a privately owned pond and a privately owned portion of a creek, she did not feel the DAC could lawfully approve any further expenditure. She stated the City Council was generous in allowing Pembroke Park to retain the additional \$7,000 dollars which had not yet been expended.

Chairperson Colston stated the DAC was tasked to advise City Council regarding the public benefits of recommended drainage projects to be funded by the Proposition 6 funds. She stated at this point she did not see any further public benefit.

Committee Member Parks thanked Mr. Jones for making his presentation. He stated he agreed there was a problem with the Creek; however, there would not be any public benefit to providing additional funds to Pembroke Park.

Committee Member Thurmond agreed. He commented he lived on Haikey Creek and when trees fell into the creek his homeowner's association had a responsibility to remove said trees.

MOTION: A motion was made by Lori Hendricks, seconded by Johnnie Parks.

**Move to recommend to Council to reject Pembroke Park's request for additional funds for construction of erosion control items on a private pond**

The motion carried by the following vote:

**Aye:** 7 - Mary Ann Colston, Lori Hendricks, Johnnie Parks, Craig Thurmond, Donna Wallace, Denise Mason, Jason Featherngill

## 5. Adjournment

The meeting adjourned at approximately 7:35 p.m.

MOTION: A motion was made by Johnnie Parks, seconded by Lori Hendricks.

**Move to adjourn**

The motion carried by the following vote:

**Aye:** 7 - Mary Ann Colston, Lori Hendricks, Johnnie Parks, Craig Thurmond, Donna Wallace, Denise Mason, Jason Featherngill

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Mary Ann Colston, Chairperson

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Lisa Blackford, Deputy City Clerk