



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

Monday, October 28, 2019

6:00 PM

**Council Chambers
220 S. 1st St.
Broken Arrow, OK 74012**

1. Call to Order

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

2. Roll Call

Present: 6 - Jason Featherngill, Donna Wallace, Johnnie Parks, Craig Thurmond, Lori Hendricks, Mary Ann Colston

3. Presentations

There were no Presentations.

4. General Committee Business

A. 19-1297 Approval of the Drainage Advisory Committee meeting minutes of September 30, 2019

There were no corrections or deletions to the September 30, 2019 Drainage Advisory Committee Meeting Minutes.

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

Move to approve the September 30, 2019 Drainage Advisory Committee Meeting Minutes

The motion carried by the following vote:

Aye: 6 - Jason Featherngill, Donna Wallace, Johnnie Parks, Craig Thurmond, Lori Hendricks, Mary Ann Colston

B. 19-1311 Consider and discuss possible action to recommend to City Council the design and construction of a storm sewer system between Stone Wood Crossing I and Stone Wood Crossing II subdivisions (Case 19-001)

Assistant City Manager of Operations Kenneth Schwab reported there were lots located in the Reserve at Battle Creek, just south of Granger Street, which drained into the northern lots of the Stone Wood Crossing I and II subdivisions. He stated the Reserve at Battle Creek was built in the mid 1990's. He displayed and discussed a map which illustrated where the lots were located and where the water drained. He noted there was a detention pond in Battle Creek which covered the Reserve, but there was still property around the Reserve and around the detention pond which drained to the south and through approximately four backyards until it reached the natural ponds in Stone Wood Crossing I and II. He indicated there was also drainage coming in from the east and west. He noted two or three residents in the area contacted the City regarding the water draining through the area, eroding the fence lines, and

approaching homes. He displayed and discussed photos of the area. He noted Broken Arrow criteria required better drainage in the area. He stated Staff had met the affected property owners and recommended a public storm sewer system be installed. He explained Staff recommended a smaller size storm sewer system, possibly 15 inches or 18 inches, with plastic inlets. He noted this was coming before the Drainage Committee as a potential Proposition 6 project due to the involvement of private property. He stated Engineering reviewed the project and developed a generic layout (without performing a survey) and Engineering believed a small stormwater sewer system could be installed for approximately \$65,000 dollars.

Committee Member Craig Thurmond asked if the work would be performed within an existing easement or if new easements would be required. Mr. Schwab responded additional easements would be required.

Committee Member Johnnie Parks asked if the additional easements would be permanent easements. Mr. Schwab responded in the affirmative. Committee Member Parks asked if the City would be required to purchase the easements or if the easements would be dedicated to the City by the property owners. Mr. Schwab responded it was recommended the easements be dedicated to the City; the City would prepare and file the necessary documents. Committee Member Parks asked if the City would set goals and limits for the project. Mr. Schwab responded in the affirmative.

Chairperson Colston asked about the map and the direction in which certain properties drained. Mr. Schwab reviewed the map and explained which properties drained into which areas.

Vice Chairperson Lori Hendricks asked about moving utilities and resultant possible cost. Mr. Schwab responded if the City ran into conflict with utilities and the project required any additional cost, Staff could bring the project back to the Committee for review.

Committee Member Thurmond noted the City would have a limited ability to move service lines during construction. Mr. Schwab agreed.

Committee Member Parks noted the stormwater sewer would not need to run extremely deep due to the natural flow through the area. Mr. Schwab concurred and discussed the easements and potential utility locations.

MOTION: A motion was made by Craig Thurmond, seconded by Mary Ann Colston.

Move to recommend to City Council the design and construction of a storm sewer system between Stone Wood Crossing I and Stone Wood Crossing II subdivisions (Case 19-001)

The motion carried by the following vote:

Aye: 6 - Jason Featherngill, Donna Wallace, Johnnie Parks, Craig Thurmond, Lori Hendricks, Mary Ann Colston

Mr. Schwab indicated this Item would go before City Council on November 18, 2019 for review.

C. 19-1312 Consider and discuss possible action to recommend to City Council the design and construction of an underground interceptor and diversion system near and around 2935 North Lions Drive (Case 19-002)

Mr. Kenneth Schwab reported near 2935 North Lions Drive there were several homes which had excessive back yard ground water. He stated Staff had visited the location and had spoken with property owners in the area. He noted one of the property owners constructed a french drain which, since construction, had been steadily draining water at a rate of ½ inch of

constant flow even when not raining. He explained it was difficult for property owners to mow and even walk through the yards due to the saturated ground. He stated he visited the area during a dry spell (approximately 10 days without rain) and observed water seepage through the cracks along the curb and standing water in certain locations. He reported Engineering believed the drainage problems in the area were due to a natural spring located under the properties and could be alleviated by constructing a series of french drains through the area. He noted the french drains would be privately owned; the pipe into which the french drains led would be public and located within an easement.

Committee Member Parks asked if the french drains would be paid for and installed by the City. Mr. Schwab responded in the negative; ideally the french drains would be paid for by the property owners. He explained if the City paid for and installed the french drains said drains would become the responsibility of the City.

Chairperson Colston indicated she visited the area. She stated the area was very wet and marsh-like. She agreed this was a problem area. Mr. Schwab stated he believed the source of the spring was located under the vacant lot with standing water in the north of the subdivision; the vacant lot owner was Mr. Phil Roland, the subdivision developer.

Committee Member Parks stated it was important to have the City assist in the design and location of the french drains to ensure the drains were functional. Mr. Schwab stated he felt this was a good idea. He stated the City would design the system and assist the property owners in obtaining price quotes, etc; however, it would be the responsibility of the home owners to construct and maintain the french drains. He indicated the City would coordinate with the home owners in this regard.

Citizen Carol Carter stated her daughter Katy owned the home at 2929 North Lions Drive. She explained Katy had constructed a french drain on her property in an attempt to alleviate the standing water. She reported the drainage difficulties had significantly increased following construction of a home on the neighboring lot to the north several years ago. She stated the drainage in the area was so poor water collected on the sidewalks promoting algae growth. She reported her daughter and grandchildren have slipped on the algae. She reported her daughter cleaned the algae weekly with bleach in an effort to keep the sidewalk from being dangerously slippery. She stated the home had been on the market for 70 days and while there was a lot of interest, potential buyers were discouraged by the water in the yard. She indicated the price of the home had been reduced by \$11,000 dollars to no avail. She noted a potential buyer was waiting to hear what happened at tonight's meeting before making a final decision. She stated her daughter was in the process of a divorce and needed the home to sell quickly. She asked for the City's assistance.

Mr. Schwab explained why the drainage situation had worsened with construction of Katy's neighbor's home and noted the situation would continue to worsen with each new home constructed in the area.

Citizen Katy Carter described the poor condition of her back yard and the worse condition of her neighbor's yard. She noted her children could not play or even walk in the backyard; their feet would sink into the mud. She stated she constructed the french drains in an effort to alleviate the standing water. She noted her neighbor had not been willing to partner with her in constructing the french drains. She hoped the City would assist as the situation was not improved.

Vice Chairperson Hendricks asked if Staff had spoken with Ms. Carter's neighbor. She stated she worried there might be a lack of cooperation in the area regarding construction of french drains. Mr. Schwab responded Staff visited with the property owner immediately north of Katy who was willing to cooperate. He indicated the neighbor wished to have

assurance the situation would be addressed as a whole by all, rather than one property owner at a time. He stated he had not yet spoken with Mr. Roland. Discussion ensued regarding possible french drains in the area in the past, old records not indicating prior existence of french drains, and Juniper Court constructing an edge drain.

Committee Member Parks asked how effective the system would be if no french drains were installed on the empty lot. Mr. Schwab responded he believed more than one french drain would be needed on the empty lot. Committee Member Thurmond stated he believed the City should require french drains be installed on the empty lot upon construction of a home. Mr. Schwab agreed. Committee Member Parks stated the City Council should possibly create an ordinance requiring french drains be installed with any new construction in the area.

Chairperson Colston asked if Katy's existing french drain would be sufficient once the neighbors installed french drains. Mr. Schwab responded in the affirmative; he noted a simple agreement with the property owners indicating functional french drains would remain on the properties regardless of ownership would be drafted by the City.

Mr. Shae Fite with Skyline Realty stated he was the real estate agent and construction consultant for Katy. He noted Katy's french drain system was designed for surface water and asked the City to review the french drain and ensure it was adequate for the area. Discussion ensued regarding the french drain utilizing perforated pipe, the locations of the french drain in the yard, and Katy's efforts in regard to the french drains.

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

Move to recommend to City Council the design and construction of an underground interceptor and diversion system near and around 2935 North Lions Drive (Case 19-002)

The motion carried by the following vote:

Aye: 6 - Jason Featherngill, Donna Wallace, Johnnie Parks, Craig Thurmond, Lori Hendricks, Mary Ann Colston

D. 19-1313 Consider and discuss possible action to recommend to City Council the clearing of the creek and drainage way of downed trees and debris in the East Branch of Haikey Creek near the Pembroke Park retention pond (Case 19-003)

Mr. Schwab reported the Pembroke Park HOA contacted the City of Broken Arrow recently to hold discussions regarding the Pembroke Park reserve area. He stated Pembroke Park was platted in April of 1996. He indicated upon entry into the subdivision there was a park, and to the north of the park was a retention pond. He noted the park and pond were located 20 feet to 30 feet above the Haikey Creek bed. He stated the HOA reported damage to the retention pond and embankment by Haikey Creek. He noted the City had experience constructing retaining walls along the Creek. He indicated Staff visited the site and it was noted construction of a retaining wall in this location would be complicated and expensive (up to \$500,000 dollars). He noted Staff did not feel there was enough public benefit for this type of investment; however, an alternate solution was discussed: removal of the fallen tree and debris from Haikey Creek, and installation of rip rap to discourage continued erosion.

Citizen Jim Jones stated his address was 3800 West Boston Street in Pembroke Park. He displayed photos of the pond near his home and noted Haikey Creek flowed along the east and north side of the pond. He displayed and discussed photos of storm damage caused by a flooding event on May 20, 2019. He noted a tree fell across Haikey Creek causing severe erosion which worsened with each subsequent rain event. He discussed the severity of the erosion; he noted the situation was becoming dangerous and the erosion was approaching the fence line. He noted the Creek was slowly encroaching upon the Pembroke Park pond. He noted the area was cordoned off, but he still worried about the safety of Pembroke Park residents, especially children who were notoriously curious. He reported soil erosion was

weakening the pond structure. He played a video which showed the water and the erosion along the Creek bank. Discussion ensued regarding the water level, and the type of soil along the Creek bank. Mr. Jones stated he believed another flood event would cause a major drainage disaster in the area and a breach in the pond structure was inevitable. He stated the tree lying across Haikey Creek had been 60 feet tall, was blocking water flow and was collecting additional debris in the area. He noted Pembroke Park had 241 residents who enjoyed and appreciated the pond facility. He stated he did not wish to lose the pond due to Haikey Creek erosion difficulties. He thanked the Committee for its time and consideration.

Mr. Jones reviewed and discussed the project proposal including project costs and eroded Creek bank length. He noted Pembroke Park did not expect the City to spend \$500,000 dollars on this repair, nor was Pembroke Park asking the City to repair several hundred feet of creek bank, but only the area near the pond which measured between 70 feet and 100 feet in length. He noted Pembroke Park pond was spring fed, and was not considered a retention pond. He asked Staff to re-evaluate the situation and find a less costly solution. He stated the Pembroke Park HOA was willing to negotiate and partner with the City of Broken Arrow in an effort to secure the area and save the pond.

Mr. Schwab noted the City's estimate was made without any Engineering input and without a survey. He explained the estimate was a conceptual best guess based on experience. He discussed what the estimate included in terms of magnum stone block and geogrid. He noted Staff estimated approximately 100 feet of Creek bank length which would need attention; however, the Creek was two-sided and therefore the length was estimated to be roughly 200 feet. He noted there was no stormwater sewer leading into the pond; therefore, Staff deemed the pond to be a retention pond, not a detention pond.

Chairperson Colston asked if there were any homes close to the pond. Mr. Jones responded in the negative. Chairperson Colston asked if there were any homes in danger due to this erosion. Mr. Jones responded in the negative.

Citizen John Harris, President of the Home Owner's Association, stated there was a home recently built near the pond. He stated if the pond gave way and emptied into the Creek, the Creek would cause damage to Olive Street (129th). He stated the pond was actively used by Pembroke Park residents, children played in the park area, residents fished in the pond and walked in the area. He stated if the pond was lost the homes in the area would lose value. He asked the City to consider finding a permanent solution which would prevent further erosion. He stated the HOA was willing to contribute funds to the project, partnering with the City if necessary, in an effort to permanently prevent further erosion and preserve the pond area. He noted the HOA did not have \$200,000 dollars to contribute.

Mr. Schwab stated there was no design plan in place. He stated if the HOA wished to speak with an engineer and develop a possible solution to the problem, Staff was willing to discuss the situation with the engineer and the HOA. He noted if the Committee recommended clearing the Creek and installing rip rap to slow erosion to City Council for the time being, any proposed design plan submitted by the HOA could be re-presented to the Committee for review in the future. He noted the first step should be to clear the tree and debris out of the Creek and install some rip rap to slow the erosion process which would give the HOA time to consider its option.

Mr. Jones asked if the proposed \$10,000 dollars included rip rap, as well as clearing the tree and debris. Mr. Schwab responded in the affirmative; however, this estimate was without any survey of the area. Committee Member Parks stated the \$10,000 dollars would cover removal of the tree and then possibly some installation of rip rap. Mr. Schwab responded in the affirmative. Committee Member Parks stated even if \$10,000 dollars was recommended to City Council, Staff could return with a further proposal if a better solution was discovered.

Discussion ensued regarding the difficulty of tree removal due to the size and location of the tree, the difficulty of getting equipment into the area for tree removal, and the pond being a natural pond which was present prior to development of Pembroke Park.

MOTION: A motion was made by Mary Ann Colston, seconded by Craig Thurmond.

Move to agree to spend up to \$10,000 dollars clearing the creek and drainage way of downed trees and debris in the East Branch of Haikey Creek near the Pembroke Park retention pond, including possible installation of rip rap if within budget, and to see what further actions need to be taken

The motion carried by the following vote:

Aye: 6 - Jason Featherngill, Donna Wallace, Johnnie Parks, Craig Thurmond, Lori Hendricks, Mary Ann Colston

Mr. Schwab noted Items 4B, 4C and 4D would go before City Council on November 18, 2019.

5. Adjournment

The meeting adjourned at approximately 7:01 p.m.

MOTION: A motion was made by Craig Thurmond, seconded by Mary Ann Colston.

Move to adjourn

The motion carried by the following vote:

Aye: 6 - Jason Featherngill, Donna Wallace, Johnnie Parks, Craig Thurmond, Lori Hendricks, Mary Ann Colston

Mary Ann Colston, Chairperson

Curtis Green, City Clerk