

FLOOD PLAIN PERMIT COMMITTEE MEETING  
*201 West Gray, Building A, Conference Room D*

*Monday, May 16, 2016*  
*3:30 p.m.*

Minutes

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PRESENT: Shawn O’Leary, Director of Public Works  
Susan Connors, Director of Planning/Community Development  
Scott Sturtz, City Engineer  
Ken Danner, Subdivision Development Manager  
Jane Hudson, Principal Planner  
Sherri Stansel, Citizen Member  
Neil Suneson, Citizen Member

OTHERS PRESENT: Todd McLellan, Development Engineer  
Tim Miles, Capital Projects Engineer  
Rachel Warila, Staff  
Lisa Kreig, CDBG/Grants Manager  
Josh Malwick, Atkins, Inc.  
Daniel Humphrey, Atkins, Inc.  
Scott Lawn, Atkins, Inc.  
Kelvin Tritten, Citizen  
Patti Hoffman, Citizen

The meeting was called to order by O’Leary at 3:30 p.m.

**Item No. 1, Approval of Minutes:**

O’Leary called for a motion to approve the minutes from the meeting of May 2, 2016. A motion was then made to approve the minutes by Sturtz and seconded by Connors. Approved 6-1 (Neil Suneson abstained due to non-attendance at prior meeting). It was noted that seven members of the committee were present and a quorum was established.

**Item No. 2, Flood Plain Permit Application No. 571:**

O'Leary then announced the first and only application of the day, which is Floodplain Permit Application #571 for the reconstruction of 5 roadways that are being done as part of the 2013 CDBG Disaster Recovery Plan. He then introduced McLellan to give the Staff Report.

McLellan stated that the applicant is the City of Norman and introduced Tim Miles, Capital Projects Engineer, Lisa Kreig, CDBG/Grants Planner, and consultants Scott Lawn, Daniel Humphry and Josh Malwick from Atkins, Inc. He explained that the City of Norman and Cleveland County both received damage to several rural roads after the natural disasters, including a May 19, 2013 tornado and multiple (six or more) wild fires in August of 2012 and that these disasters were all located in the same general area of southeastern Norman/Cleveland County. He said that damages to these roads with thin pavement sections were caused by heavy equipment providing aid during the disaster and recovery phases of the responses.

McLellan stated that in June 2014, the U.S. Department of Housing & Urban Development (HUD) released its allocations and program requirements for the CDBG-DR 2013 Program. He said that after learning that this aid was available to repair damages from the two previous natural disasters, both the City of Norman and Cleveland County completed applications to receive funding. He said that the projects are projected to start in June 2016 and be completed by April 2017.

McLellan said that all 5 projects are located in the Little River/Lake Thunderbird Watershed in both Flood Zone A and AE and each location required specific methods to analyze the crossings and impact to the floodplain. He stated that three site locations are in Zone AE floodplain because of backwater from the Lake Thunderbird flood pool elevation set by the emergency spillway. He said that two site locations involve only a Zone A floodplain, with a third site having both Zone A and AE. McLellan said that each location was individually modeled by the Engineer and that no FEMA floodplain models were available for any of the locations.

McLellan said that the first site was located in the area of the Clear Creek crossing in floodplain Zone A and this portion of the work will involve replacing the single 24" corrugated metal pipe (CMP) at Station 227+12 with a 10' by 3' reinforced box culvert (RCB) and raising the roadway up to 3' to provide clearance for the new RCB. He said that roadway sections located in the floodplain outside the area of the new RCB will be milled and overlaid.

He explained that for design of the RCB and new roadway, the Engineer created a HEC-RAS hydraulic analysis to compare existing and proposed post developed conditions and a table from the Atkins hydraulic report indicates that there would be a rise in the water surface elevation (modeled BFE) of up to .03', which is less than the 0.5' allowed by the floodplain ordinance.

McLellan stated that the second site is located at the southern end of 96<sup>th</sup> Ave N.E. in the backwater of Lake Thunderbird Zone AE, with a BFE of 1049.0' and that there would be a minor raising of the grade of the existing roadway in this area. He said that for design of the roadway, the Engineer created a HEC-RAS hydraulic analysis to compare existing and proposed post developed conditions and indicated that there will be no rise in the water surface elevation (modeled BFE) due to this project.

McLellan said that the third site is located on East Tecumseh Road, approximately 1/8 mile west of 96<sup>th</sup> Ave N.E. in both floodplain Zone A and AE. He said that Zone AE is due to the flood pool elevation of Lake Thunderbird and Zone A is the result from an unnamed tributary feeding into the lake. He said that there would be minor cutting/raising of the grade of up to 4 inches in this area and existing culverts would not be changed.

He explained that for design of the roadway for this project, the Engineer created a Geo-RAS hydraulic analysis to compare existing and proposed post developed conditions and the Atkins hydraulic report indicates there will be no rise in the water surface elevation (modeled BFE) due to this project and the WSE's will actually decrease immediately upstream and downstream of the existing culvert.

McLellan said the fourth site is located on East Tecumseh Road, approximately 1/2 mile west of 96<sup>th</sup> Ave N.E. in floodplain Zone AE and the BFE at the site is 1049.0' and is a result of backwater from the Lake Thunderbird flood pool. McLellan stated that the roadway will be

raised up to approximately 5' and the 2 existing 24" CMPs will be replaced with 3 – 12' by 6' RCB's.

He said that for design of the roadway, the Engineer created a HEC-RAS hydraulic analysis to compare existing and proposed post developed conditions and the Lake Thunderbird flood pool elevation of 1049' follows contour elevations and is independent from the flow coming from the unnamed tributary. McLellan said that there is no detailed study upstream of the backwater from Lake Thunderbird for this location and installing the larger culverts does not impede the backwater and will not negatively impact the backwater elevation as shown in the hydraulic analysis. He noted that information in the Atkins hydraulic report indicates that there will be no rise in the water surface elevation (modeled BFE) due to this project and the WSE's will actually decrease immediately upstream of the proposed culvert.

McLellan said that the fifth site is located just north of East Tecumseh Road and crosses Tributary "C" of Little River in floodplain Zone A and that this portion of the work will involve replacing the single 24" corrugated metal pipe (CMP) at Station 105+96 with a 10' by 3' RCB and raising the roadway up 2.5' to provide clearance for the new RCB. He said that there is an existing drive approach on the east side of 84<sup>th</sup> Ave N.E. immediately south of the crossing that may need to be raised and a pipe installed in the bar ditch, as part of this project.

He stated that for design of the RCB and new roadway, the Engineer used the HY-8 Culvert analysis program to compare existing and proposed post developed conditions and the proposed culvert was analyzed using the same slope and tailwater conditions with a higher

roadway grade. He said that information in the Atkins hydraulic report indicates there will be a rise in the water surface elevation (modeled BFE) of up to .01', which is less than the .05' allowed by the floodplain ordinance.

McLellan explained that some of the projects may involve relocation of AT&T utility lines; however, exact location and depths are unknown at this time. He explained that the applicant desires to include the work as part of this floodplain permit.

McLellan then discussed the Applicable Ordinance Sections:

4(b)(1)(b) Fill Restrictions in the Floodplain– McLellan explained that the use of fill is restricted in the floodplain because storage capacity is removed, natural drainage patterns are adversely altered and erosion problems can develop, however, Section (b) allows fill for the construction or repair of public roads and bridges. He said that the bar ditches will be cleaned out and deepened as necessary; therefore additional compensatory storage is not required.

5(a)(viii) No Rise Considerations- McLellan discussed that for proposed development within any flood hazard area (except for those designated as regulatory floodways), certification that a rise of not more than 0.05 ft. will occur in the BFE on any adjacent property, as a result of the proposed work. He said that the applicant's engineer has certified that none of the projects will cause a rise in the BFE of more than 0.05', which meets the ordinance requirement.

McLellan then stated that it was Staff's recommendation that Floodplain Permit Application #571 be approved.

O'Leary then opened the floor for public comment. Kelvin Tritten who lives at 9301 E. Tecumseh Road in Norman, Oklahoma responded that there was a culvert under the road in this area that is not flowing and that he would like to request that it be replaced to help remove water from his property. O'Leary then asked the design team if they were aware of this culvert. Humphrey responded that they were aware of the culvert and that it was silted in and full of dirt and that it would not be replaced but they would require that the contractor clean it out. Tritten then said he just wanted to make sure that it was safe and was removing the water and asked the design team if they knew what size the culvert was. Malwick responded that it was an 18 inch culvert and it does have a consistent flow. O'Leary then commented that they would ensure that this culvert be addressed as part of the construction of this project.

Patti Hoffman of 8600 E. Tecumseh Road then spoke about how water backs up on to her land from the West Tecumseh structure and that she was concerned that if this project raises Tecumseh Road that water will not drain off of her property. Sturtz responded that there were likely multiple locations that flood in this area because the entire lake would rise at the same rate and that these locations would continue to receive the same amount of water as they did before. Hoffman then said that she had been told by multiple people that if Tecumseh Road is raised it may raise the flood stage of the lake. O'Leary responded that he would be happy to

follow up with the Army Corps of Engineers to find out what their criteria is for releasing water from the lake, but the goal here is to improve roadway and drainage conditions and that is what this project is designed to do. Hoffman then asked for clarification of the project. McLellan showed Hoffman a plan and profile sheet and that the road would be raised about five feet and that the culvert would be replaced with a much bigger structure. O'Leary said that the goal was to keep water from overtopping the road and make it go through the culvert instead.

O'Leary then brought the discussion back to the committee for further discussion or a motion. Danner recommended approval which was seconded by Sturtz. Approved 7-0.

**Item No. 3, Miscellaneous Discussion**

O'Leary then stated that there were currently no applications for the June 6<sup>th</sup>, or the June 20<sup>th</sup> meeting. He added that the City Council was scheduled to meet regarding the revision to the City's Floodplain Ordinance on May 24<sup>th</sup>. Stansel then asked the committee if there was any update on the Lonnie Hodges case. Sturtz responded that it was being treated as an active enforcement case, that letters had already been sent to that location and that they were working closely with the Legal Department to see what options were available to take appropriate action.

O'Leary commented that they were also working closely with Russ DuttneI who is doing an analysis of the Canadian River movement to provide the City with an educated guess on what

might happen if the river continues to move to the north and to the east. He said that preliminary information in this report has shown that an increase in fill is actually contributing to the erosion problem and this information might help to pursue further legal action. O'Leary said that he hoped to have this technical report finalized and ready for distribution later this week and that this information would be presented to the committee. A motion was then made to adjourn the meeting by Connors, which was seconded by Sturtz.

Approved 7-0.