

MINUTES OF MEETING
ZONING BOARD OF ADJUSTMENT
Monday, October 10, 2016

FLOOD MANAGEMENT BOARD DOCKET 2016-01

1201 Warson Road

A meeting of the Zoning Board of Adjustment was held at 4:00 p.m. on Monday, October 10, 2016, at City Hall.

The following members of the board were present:

Mr. Stanley Walch
Ms. Liza Forshaw
Mr. David Schlafly
Ms. Laura Long
Mr. Daniel Welsh

Also present were: Mr. William Penney, Building Official; Ms. Anne Lamitola, Director of Public Works; and Ms. Erin Seele, City Attorney. Mayor Nancy Spewak were also in attendance.

Mr. Walch called the meeting to order at 4:00 PM.

Notice of Public Hearing, as follows:

**NOTICE OF PUBLIC HEARING
FLOOD MANAGEMENT BOARD
CITY OF LADUE, MISSOURI
DOCKET NUMBER 2016-01**

Notice is hereby given that the Flood Management Board (Appeal Board) of the City of Ladue, St. Louis County, Missouri, will hold a public hearing on a petition submitted by the Ladue School District for Ladue High School, 1201 Warson Road, St. Louis, MO 63124, requesting relief from the requirements of Ordinance 1468, Flood Management Ordinance, as amended for the Ladue High School addition project. The proposed addition was denied by the Floodplain Administrator because the proposed addition creates a rise in the water surface elevation and causes an increase in flow velocity which are both prohibited by Chapter 124-11 of the Code of Ordinances.

The hearing will be held at 4:00 p.m. on Monday, October 10, 2016, at the City Hall, 9345 Clayton Road.

The hearing will be public and anyone interested in the proceedings will be given the opportunity to be heard.

Pursuant to Section 610.022 RSMo., the Flood Management Board could vote to close the public meeting and move to executive session to discuss matters relating to litigation, legal actions and/or communications from the City Attorney as provided under section 610.021 (1) RSMo.

Stanley Walch, Chairman
Flood Management Board

Mr. Walch asked Building Official Will Penney for an explanation with regard to the denial of the addition at Ladue High School and Mr. Penney stated that the proposed addition will cause a rise in the base flood elevation and an increase in velocity which is prohibited by Chapter 124-11 of the Code of Ordinances.

Mr. Walch introduced the following exhibits to be entered into the record:

- Exhibit A – Ordinance 1468; the Flood Management Ordinance of the City of Ladue
- Exhibit B – Denial letter dated August 1, 2016
- Exhibit C – list of residents to whom the notice of public hearing and Public Notice of the Hearing;
- Exhibit D – Appeal letter dated August 5, 2016;
- Exhibit E – Entire file relating to the application

The court reporter administered the oath to Mr. Art Bond, project architect and Mr. Brandon Harp & Mike Vorwerk with Civil Engineer Design Consultants.

Mr. Bond provided an overview of the project which consists of the high school expansion project for the STEAM (Science, Technology, Engineering, Art, and Math) building at 1201 S. Warson. The project is replacing the west wing of the high school with the new addition. He referred to the site plan and the existing portions of the building that are being removed and explained the location of the proposed addition. The remaining work involves interior renovations. He stated that two-thirds of the site is within the floodplain. He stated that the school facilities are out of date and that larger classrooms are needed for the science buildings. He stated that the variance request to the floodplain regulations and the variance request for an increased building height are tied together because construction must be vertical in order to avoid further floodplain encroachments. He referred to other site constraints on the property including the MSD sanitary sewer easement on the north side of the property.

Mr. Harp came forward and reviewed the site plan with the Board, pointing out where the floodplain and floodway are located on the property. He stated that an engineered model was created of the existing conditions which is then modified to include the proposed improvements to determine impacts to the floodplain. He stated that there are four property owners affected by the project. He then referred to the cross section map to explain the locations of impacted areas. The blue area is an area where there is no change to the base flood elevations, and within the green area, there are decreases to the base flood elevations. The yellow area on the map is the location where an increase to the base flood elevation is expected and is the area adjacent to the high school addition. The variance request is for a slight increase to the base flood elevations and the velocity in the yellow area. The velocity increases range from 0.13 feet per second to 0.4 feet per second. There are also decreases in the velocity according to the model and essentially there are varying increases and decreases through the channel. The increase to the base flood elevation within the yellow area is 1.8 inches at the western end and 0.72 inches on the eastern end.

He stated that the creek is mainly on the school property but the bank of the creek meanders onto the adjacent properties. The rises are still within the wooded stream bank and that the vertical rise accounts for an approximate one-inch floodplain encroachment horizontally.

The flood study has been approved by MSD. The conditional letter of map revision (CLOMR), along with the flood study, have been approved by FEMA. Mr. Harp stated that the amount of storm water leaving the site will be less than current conditions and the storm water will be cleaner due to the construction of bio-retention basins which are water quality features. The

velocity changes are non-erosive. The rise in water level does not adversely impact the current conditions. The location of the new building has the least impact to the flood plain.

Storm water detention basins will be required to address volume issues and to address water quality, infiltration basins and bio-retention basins will be constructed.

With regard to velocity, the banks are wooded and do not significantly impact adjacent properties.

The hardships on the property include the fact that 67% of the campus is located within the floodplain and that the site restrictions include the location of floodplain, floodway, and MSD easements. He explained that the addition is needed in the proposed location because it is replacing an obsolete building in the same location.

Ms. Forshaw asked about the number of properties being impacted and asked them to confirm that it is four. Mr. Harp provided the impacted addresses; 10021, 10043, 10049, and 10057 Springwood. He reiterated that the base flood elevation increase on these four properties ranges from 0.72 to 1.8 inches. Ms. Forshaw asked about the rise on the school property and Mr. Harp stated that it is the same; 0.72 inches to 1.8 inches.

Mr. Welsh asked where the bio-retention basins will be located on the property and Mr. Harp showed the Commission where the existing and proposed storm water BMP's (Best Management Practices) will be located on the site.

Ms. Forshaw asked about the risk of flooding on the new building. Mr. Harp stated that the lowest level will be above the base flood elevation. Mr. Bond indicated that the old building contained 18,000 square feet of the building that was below grade that did flood.

Mr. Schlafly asked if there will be new flooding on properties due to this project and Mr. Harp responded no.

Mr. Paul Reitz, Reitz and Jens, came forward who is the independent floodplain plan reviewer hired by the City. He stated that he agrees with the methodology of CEDC with regard to the modeling. He stated that with respect to the FEMA aspect of the project, the local administrator must enforce FEMA's regulations. These reviews are to ensure that generally, what is being proposed, is in accordance with the FEMA regulations. The City's requirement that velocity cannot increase is specific to Ladue, and not a federal regulation. The velocity increases are non-erosive and negligible.

Mr. Reitz explained that the map revision is needed because of the rise to the base flood elevations. The work in the floodway and impacts do require FEMA approval due to the 1.8-inch rise. FEMA has approved the Conditional Letter of Map Revision (CLOMR) and after the project has been completed, the Letter of Map Revision (LOMR) will be submitted in order for the actual floodplain maps to be amended to reflect the as-built conditions. FEMA will issue new flood plain elevations and the new flood study, then the City must regulate from the new maps, but he added that the changes are minor.

In 2008, during the last major Ladue High School project, the floodplain models were developed in a conservative manner where an assumption was made that the fences on the property would be blocked with debris during flood events and not allow water to flow through them. Bringing the floodplain maps up to date from the actual floodplain conditions to the proposed 2016 conditions do increase the floodplain elevations by 1.6 feet, but this is based on the improved modeling and not a result of the project. It may be possible to model the project in a different way because of how the fence was considered to be obstructed in 2008. He reiterated that the floodplain management board must make the determination on the variance requests.

Mr. Walch asked if any neighbor will now have to buy FEMA insurance that does not currently, and an answer was not readily available at the meeting.

Mr. Vorwerk stated that the modeling can take place either with or without the fence and will impact how the floodplain maps will be delineated. At the time of the LOMR, after project construction, then a final determination can be made.

Mr. Harp stated that a CLOMR is based on the proposed design and the LOMR is based on the as-built conditions. He explained that the as-built conditions should match the proposed design because the surveyed layout for construction is highly accurate. Mr. Welsh asked if there is a possibility of FEMA not approving the project after construction has been completed and Mr. Harp said that was not a possibility. Mr. Vorwerk added that FEMA will notify the affected public at the time of the LOMR.

Mr. and Mrs. Wilson, 10021 Springwood Drive, came forward. They stated that their basement has flooded in the past. In 2008, the Deer Creek flooded and bashed in the basement door. Mrs. Wilson expressed concern about the rise in the base flood elevation. Mrs. Wilson stated that they would like to be bought out by the school district.

Mr. Wilson stated that they have lived in the home since 1993 and the home has been flooded four or five times. He stated that the basement floor is below the 100 year flood plain. He asked the Commission to reject the proposed project. Ms. Forshaw asked if other properties in Springwood have flooded and Mr. Wilson stated that to his knowledge, their house is the only one west of Warson Road along Deer Creek and the High School that has flooded.

Mr. Eddie O'Donnell, 10050 Conway Road, came forward and stated that he has lived in his home for 52 years. He asked about the capacity of the retention basin and whether it can be increased. He asked the Board if they can require a larger basin. Mr. Harp stated that the basin is sized to meet the requirements of the City and MSD. Mr. Bond stated that there are multiple strategies on the property to address storm water management.

Mr. Welsh referred to the cross-section map and the impacts of the project at 10021 Springwood Drive. Mr. Harp stated that he is aware of the flooding conditions at that particular property as the basement floor elevation is five to six feet below the 100-year Base Flood Elevation. Mr. Harp stated that at 10021 Springwood Drive, near the east property line, there will be a decrease to the base flood elevation and on the west side, there will be an increase of 0.72 inches to the base flood elevation.

The public comment portion of the meeting was closed.

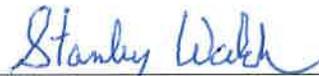
Ms. Forshaw stated that as she understands the project, that FEMA has issued a conditional approval. Ms. Forshaw expressed concerns about the Wilsons but noted they have a preexisting flooding condition. She stated that the project is of great public importance.

Ms. Forshaw moved that on the basis of the evidence presented and considering all relevant factors, the applicant has made a showing of good and sufficient cause for the variance; that a failure to grant the variance would result in a particular hardship to the applicant; that the variance will not result in any increase in flood levels during the base flood discharge, or any additional threat to public safety, or extraordinary public expense, or create nuisances, cause fraud or victimization of the public, or conflict with existing local laws or ordinances; and that the variance is the minimum necessary, considering the flood hazard, to afford relief. Therefore, the decision of the Building Official is reversed and the request for a variance is granted for the Ladue High School project for a rise in the base flood elevation and an increase to the velocity.

Ms. Long seconded the motion. Mr. Walch called for a vote with regard to this variance request and the vote thereupon was as follows:

Mr. Stanley Walch	"Approve"
Ms. Liza Forshaw	"Approve"
Mr. David Schlafly	"Approve"
Ms. Laura Long	"Approve"
Mr. Daniel Welsh	"Approve"

There were five (5) votes to approve and zero (0) votes to deny and therefore the variance was granted.



Mr. Stanley Walch, Chairman

FMB 2016-01

DATE OF HEARING	October 10, 2016
NAME	Ladue School District for Ladue High School
DESCRIPTION OF PROPERTY	1201 Warson Road
CAUSE FOR APPEAL	Relief from the requirements of Ordinance 1468, Flood Management Ordinance, as amended for the Ladue High School addition project. The proposed addition was denied by the Floodplain Administrator because the proposed addition creates a rise in the water surface elevation and causes an increase in flow velocity which are both prohibited by Chapter 124-11 of the Code of Ordinances
RULING OF THE BOARD	After a discussion of the facts presented, the Board approved the variance for the building addition which will violate the requirements of Chapter 124-11 of the Code of Ordinances with respect to creating a rise to the base flood elevation and an increase in the velocity and the decision of the floodplain administrator was overturned.