



August 26, 2020

City of Franklin Planning Commission

Via Email

RE: Envision Franklin Plan Amendment Proposal for higher density for Brownland Farm on the Harpeth River- item 4. Comments and input on the floodplain alteration proposal to be presented

Dear Franklin Planning Commission:

On Thursday's Planning commission agenda is the proposal to amend the Envision Franklin plan for higher density residential and neighborhood commercial design concepts for portions of Brownland Farm. This proposed plan amendment higher density concepts than the plan's current Conservation Subdivision concept is based on a significant alteration to the natural floodplain and floodway channels in this unusual bend in the Harpeth that creates unique constraints for traffic, flood management, and public safety. There are complex issues in this proposal for this area of the Harpeth which is reflected in this proposal being deferred two times since June. We appreciate the time the city's planning and engineering staff have spent to provide us with input on the review process. We have also reached out to the community and to state and federal experts on floodplain alteration review processes to understand this proposal. We also appreciate the time that Kevin Estes at Land Solutions, Barge Design Solutions and Greg Gamble provided in late July to discuss their floodplain alteration concepts with us.

With this letter we would like to provide the Planning Commission with our thoughts, recommendations, and information that we have provided to the city's staff that we hope will be useful in the city's deliberations on not just this proposal, but the larger issue of floodplain management and flood resiliency planning.

You can also see more photographs, video, and documents that are referenced here on our [web site page](#).¹ I have also provided some of that information here to make it easy for you to choose the format your prefer.

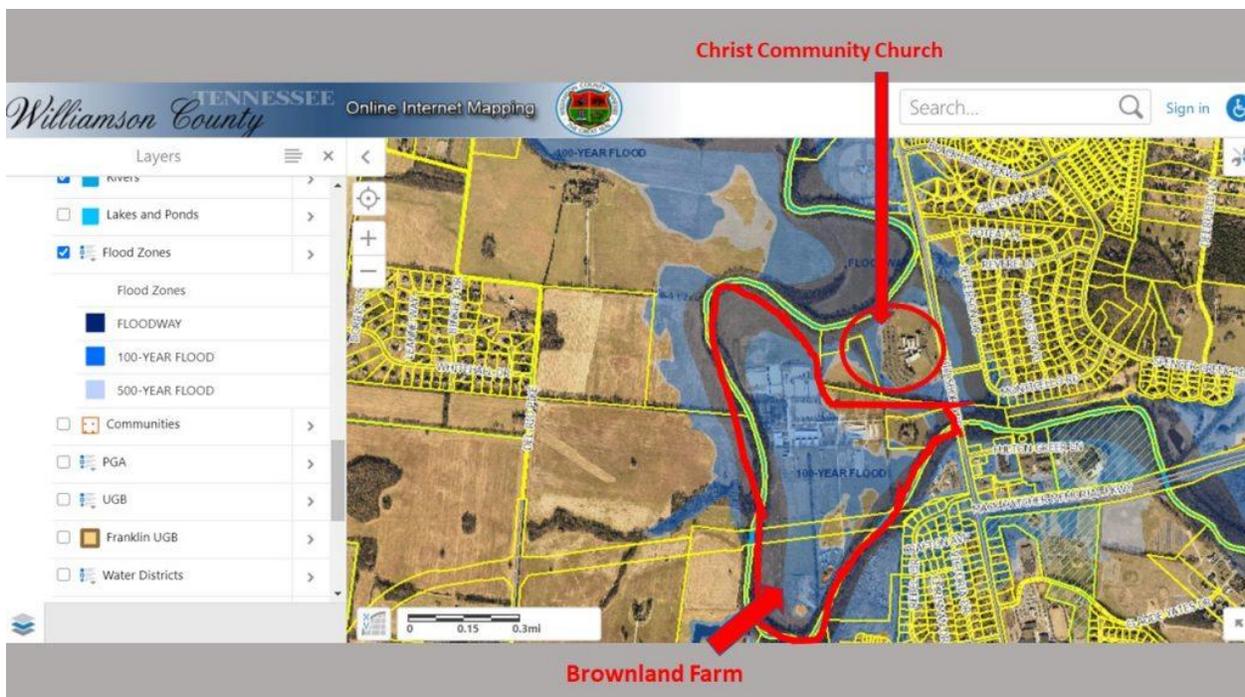
In summary with details below, Harpeth Conservancy believes that this Envision Franklin plan amendment for higher density for this flood constrained river bend needs to be turned down. We support the staff concerns for traffic, public safety and emergency response because of the environmental constraints of the river and Hillsboro Road and lack of other access for people to get in and out of this area. This area was extensively flooded in 2010 including on Hillsboro Road. The maps from FEMA below show clearly that this area is completely surrounded by floodway which leaves the higher ground in the bend of the river isolated as an island until access out of flood waters is provided from the West as well as flooding issues along Hillsboro Road are addressed.

¹ <https://harpethconservancy.org/uncategorized/major-issues-with-high-density-development-proposal-in-harpeth-floodplain-up-for-approval-by-franklin-planning-commission/>

In addition, the floodplain alteration proposal is extensive and involves filling one of the floodways and extensive cuts along the main river that will substantially change the natural floodplain. During the joint BOMA and Planning Commission meeting in July when the developer/applicant presented an overview of this proposal, Planning Commissioner Roger Lindsay noted that this could be the first significant floodplain and floodway cut and fill proposal the city has seen in recent times. The process of the state and federal FEMA review of this proposal will take several months and will involve outside expert review from the engineering firm, AECOM, that did the work with the federal agencies to update the FEMA floodplain maps for the Harpeth. As of last week, we understand that the developer's floodplain alteration proposal has not been submitted to the city staff. This submittal starts the formal state and federal review process.

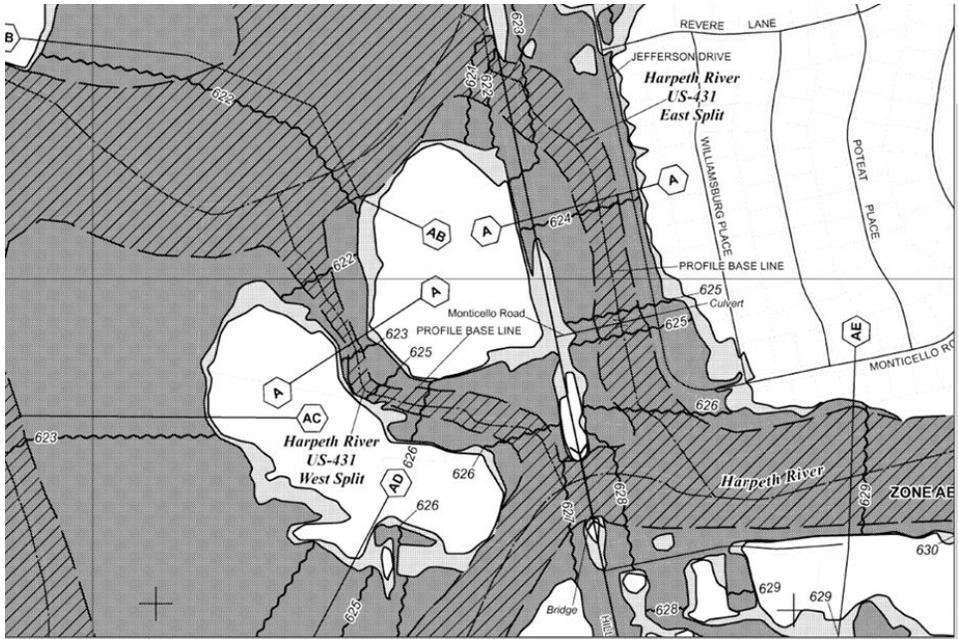
A proposal for this bend in the Harpeth for Brownland Farm and any portion of Christ Community Church needs to be resubmitted after all of the state and federal review processes for the floodplain alteration proposal are completed. We understand that there are more of these floodplain alteration proposal around the state each year and that the expert review process has been valuable in revising and correctly problems in the proposals. It doesn't seem appropriate to consider a plan amendment or approve a plan following the city's current plan that would establish entitlements that can not be used if the floodplain alteration proposal they are based on have not been reviewed and approved by the state and national FEMA review process.

Specific Points on the floodplain alteration proposal:



Caption: This map shows the current floodplain in Harpeth River bend where Brownland Farm is located. There are TWO floodway channels that cut across this bend. One is west of Christ Community Church and Hillsboro Road. Another floodway channel cuts over the entrance to Brownland Farm and flows behind the church. See photos and video below from the May 2010 flood.

The rezoning proposal is based on a dramatic change in the Harpeth river's large natural floodplain and high flood channels. Brownland Farm and Christ Community Church are situated on this large bend in the Harpeth. From the FEMA map below it appears to more than 75% of the land in the bend is in floodplain and cut off by two high flood channels, called floodways. The 100-year floodplain (dark gray) and floodway channels (hatched area in dark gray) flow over Hillsboro Road, which is the only way out of this bend in the river. During the historic May 2010 flood, floodwaters covered Hillsboro Road and flooded much of the river bend and the farm entrance (see photos below).



Caption: The 100-year floodplain is defined as having a 1% occurrence every year. These events can happen every year and more than once a year though. The floodway indicates where the main channel of swift water is. The wavy lines are FEMA determined elevations.



This map from the developer's presentation shows the two floodway channels that cut off the bend in the river. Hillsboro Road is on the right running North to South. The pink band is Mack Hatcher Parkway. There is no access to this bridge for any development in the bend according to the staff report.

1. The proposed reduction of 25% of the floodplain runs counter the Envision Franklin's Conservation Design concept which calls for limited disruption in these areas.

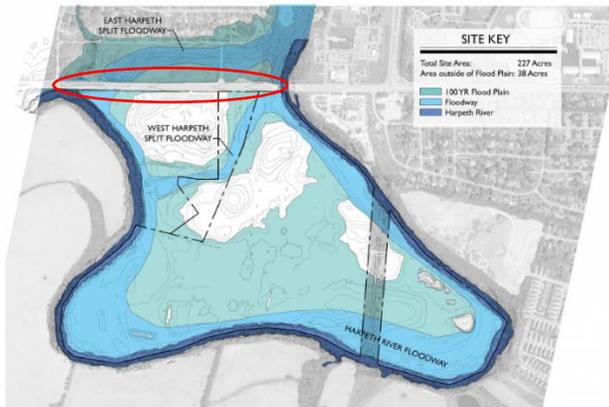
The drastic floodplain alteration not only proposes filling the floodway, but also to remove 64.2 acres from the floodplain. The reduction of over 25% of the floodplain on the property goes counter to the city’s Conservation Design Concept that applies to all the floodplain in Envision Franklin. The Conservation design concept “contemplates as little development as possible in order to protect sensitive land and environmental features” such as floodplains. “The preservation of floodplains has a direct public-safety purpose and helps to minimize property damage during periods of flooding. Disruption in any Conservation area should be limited to preserve the function, form, and character of the area.” (p. 32).



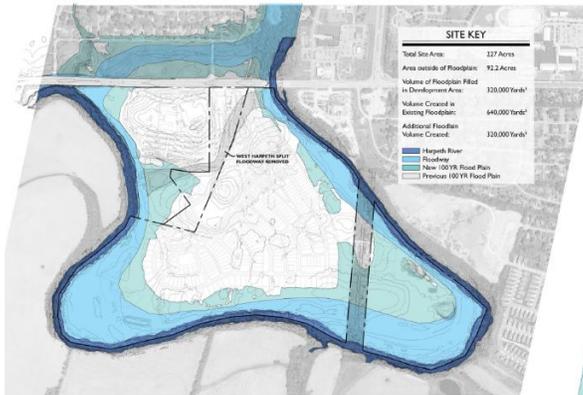
Caption: The left image is the Envision Franklin plan of Conservation Concept design for the floodplain and Conservation Subdivision concept (light green) on those small portions of Brownland Farm and the church not in the floodplain. The plan amendment proposal is for Multi-family Residential (orange) and Neighborhood Commercial (red) which are over one of the floodway channels proposed to be filled.

These two maps below are from the developer’s presentation to show the existing and proposed floodplain and floodway changes. The Existing Floodplain map does NOT show the 100-year floodplain (green) or floodway (blue) going over (covering) Hillsboro Road as the FEMA map shows (most of the area inside red oval area). This map does not seem to be a correct representation of the FEMA maps of the existing conditions.

EXISTING FLOODPLAIN



PROPOSED FLOODPLAIN



- 2. Harpeth Conservancy supports the significant concerns raised in the staff report with traffic, safety, and emergency response since the only way in and out of this area is on Hillsboro road which is blocked with floodway and 100-year floodplain flows.

Very importantly for public safety, there is no way out of this bend in the river across the Harpeth to the west. For public safety reasons alone this plan amendment proposal needs to be turned down. Any development proposal that follows the city’s current Envision Franklin plan needs to wait until the state and federal reviews of any floodplain alteration proposal is completed.

The city engineering staff were interested in photos and video of the May 2010 flood that would corroborate the FEMA maps. We asked folks in the community who helped to find these images and video which were found on various people’s facebook accounts.



The photos above are at the site on Hillsboro Road and Poteat Place where the floodway called the “East Split” on the FEMA map covered Hillsboro Road. There is also a [video](#) linked on our web site that shows the swift moving water during the flood over Hillsboro Road.

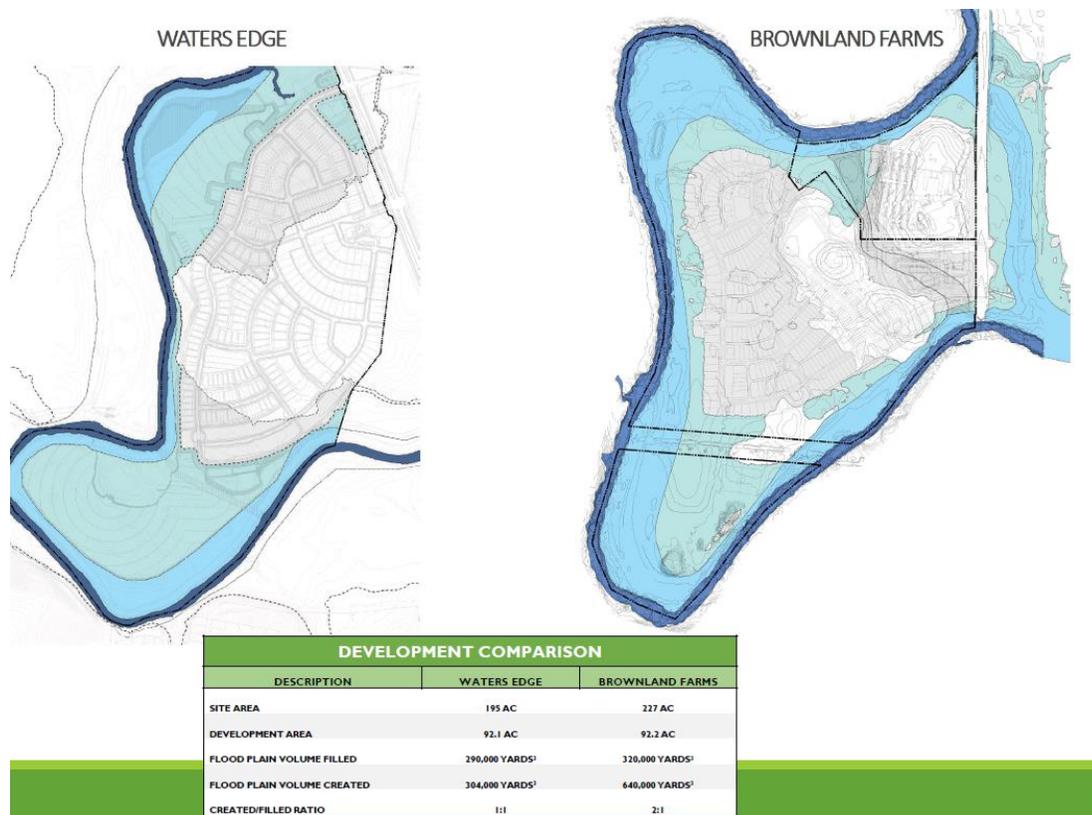
The photos below show the extent of floodwaters in the bend on Brownland Farm and the church property. The first photo is at the Brownland Farm entrance at the “West Split” floodway. The next two are from Brownland Farms in the middle of the property. The last is of the Stewards garden behind Christ Community Church.



3. There are two Fundamental Differences Between the Floodplain Alteration at Waters Edge and what is proposed for Brownland Farm.

- Waters Edge’s floodplain alteration does not appear to have filled floodway
- Brownland Farm is surrounded by floodway channels. Waters Edge is not.

The big difference is that Brownland and Christ Community Church are situated on a bend of the river that is on an island surrounded by the floodway. Waters Edge is situated with higher slopes on the other side of Carothers parkway. The slide from the developer’s presentation is below and shows this distinct and important difference.



- An extensive Floodplain and floodway alteration plan just for the Brownland Farm property is too short sighted and too narrowly focused because of the naturally large and mostly unaltered floodplain, the river’s meandering natural channel, and the existing roads and developments in the area.

While FEMA minimum requirements are that alternations not increase the probability of flood risk in the 100-year floodplain, this will not guarantee that downstream properties will not see more flood water or not flood more often. For example, the Brownland Farm floodplain alteration plan does not help to reduce flood risk downriver in Fieldstone Farms or Cottonwood that were built under earlier requirements and floodplain extent. Many homes are now in the 100-year floodplain that were not when built. A key reason is that FEMA flood models are based on historical data and do not include the increase in intense rain events from climate change that is affecting our region (see below). Floodplain models also are predicting based on one rain event, not several back to back.

Also though this development proposal includes the Eatherly property where one of the floodway channel flows in front of Monticello, the floodplain alteration proposal does not appear to reduce flooding in Monticello along Jefferson road or Monticello Road. This floodway channel, the “East Split,” runs parallel to and over Hillsboro Road as happened during the May 2010 flood. As discussed above, the current FEMA map shows the floodway and 100-year floodplain covering Hillsboro Road. It is vital for any high-density residential development in this area of the Harpeth to have two accesses with one not being Hillsboro Road.

These photos below are aerials of the extensive flooding to nearby residential areas. From top to bottom are Fieldstone farms, Fieldstone Ball park next to Christ Community Church, and Mack Hatcher Parkway crossing the Harpeth looking west to Hillsboro road. (sewer plant is left).



The May 2010 Historic Flood was a Huge Wake-Up call to the greater Nashville Region

The May 2010 flood was caused by two intense rain events that set new historic records for the Nashville region. The entire Harpeth River flooded with the all-time rainiest day and third rainiest day coming back to back on the weekend of May 1 and 2. We have details of various analyses on [our web site](#).² The floodplain maps were updated for the entire Harpeth several years ago after the May 2010 flood. However that work and FEMA models used to propose changes to the floodplain DO NOT include projections of increased rainfall intensity that is occurring in this area from climate change. Nor do FEMA requirements incorporate targets to reduce downstream properties from the 100-year floodplain. New flood prediction models, called [Flood Factor](#), received national coverage (see story in [the New York Times](#))³ and front page coverage in the [Tennessean](#)⁴ in early July this year with their focus on how to incorporate climate change predictions into FEMA's work.

The city has also updated and added important additional requirements for new construction, so homes are elevated above flood levels, and additional requirements to account for some of the increased flood volume. However, the city does allow cut and fill in the floodway and floodplain. With the intent of Envision Franklin to preserve the function and form of floodplains by calling for limited disruption, the city will want to review how to limit the use of cut and fill in the floodway and for what purposes, such as limiting it to rectifying an existing man-made flooding condition.

But there needs to be an intentional effort to have new development upstream in a floodplain reduce the number of existing properties in the floodplain that now have increased flood risk from the pattern of prior development and earlier requirements. Just like the city and county requires new development to provide funds through various means to cover costs of roads, schools, sewer and drinking water upgrades, any floodplain alteration plan needs to specifically analyze how it will reduce existing flood risk that is in this high density residential area of the Harpeth. As a community we can development these goals and specific requirements to protect current residents and property owners and provide ways for possible public investment that is complemented by private investment from any new development.

Other Residential Proposals nearby highlight the need for a special plan for the last rural and historic area of Franklin bounded by the Harpeth and West Harpeth north of new Highway 96 West

At the same time as this plan amendment proposal for higher density development for Brownland Farm is the proposed annexation of the 58-acre Campbell property for a residential subdivision in the middle of rural land. The proposal is adjacent to the Gentry and Short farms, both TN Century Farms, and two home sites listed on the National Register of Historic Places that are north of Highway 96 West near the West Harpeth. We support the Heritage Foundation's recent recommendation as well for the city to not annex the Campbell property at this time.

² <https://harpethconservancy.org/programs/clean-water-protection/retrospective-on-may-2010-flood/>

³ "New Data Reveals Hidden Flood Risk Across America," New York Times, June 29, 2020.

⁴ "What's the Real Flood Danger? New data shows risks across Tennessee," Tennessean, July 3, 2020

Both of these development proposals highlight the need for a special plan for this last rural area of Franklin. This Northwest quadrant, from Brownland Farm in the East to Gentry Farm in the West north of highway 96 West, contributes greatly to the historic agricultural heritage of the city and county. As several aldermen noted in a recently discussion on the major thoroughfare plan for this rural area, “this area needs a different feel” from West Haven and “we need to go back to the drawing board on how to get this area developed more in keeping with the area North of 96.”

This updated plan would honor and invest in the historic and rural character that includes the deep history tied to the equestrian industry in Franklin, Williamson county and the region. This special plan also needs a specific floodplain risk reduction and resiliency plan that addresses current made-made flooding and reduces the risk to current property owners from flooding in the city and county downstream of downtown Franklin.



This map shows the city’s Northwest quadrant that is bounded by large floodplains of the West Harpeth (left) and main Harpeth.

The Equestrian industry is important to Franklin and Williamson County’s heritage and current economy

HC participated in and supported Williamson County’s recently adopted Williamson2040 plan that has a key goal to preserve the rural character of the county. Infrastructure costs in terms of schools and roads were studied in this plan and by others in this region. A key recommendation as well is to work on a rural agricultural plan that prioritizes rural land uses such as agri-hoods, small farms, the equestrian industry and more.

The equestrian industry is a major part of this area’s history and current culture. The city invested in this with the purchase and creation of Franklin’s Park at Harlinsdale Farm. On Brownland Farm, Cissy Anderton and her family created and have run a renowned horse show business for nearly 60 years. This includes the high caliber Music Country Grand Prix show jumping competition that is also featured charity fundraising event for Saddle Up. A 2010 [Williamson Herald](#) story notes that \$30 million is generated in local revenue from horse

industry, much from Brownland Farm.⁵ It is important for the city and county to consider how both land use plans and other programs can incentivize this important industry to the local economic economy that has little burden on infrastructure.

An special plan for the NW quadrant for Envision Franklin could focus on how to support the agricultural and lower density uses of this area, which will translate into much reduced cost in infrastructure needs from roads, schools, sewer and drinking water expansion, and public safety risk from flooding. The 2018 study by Dr. Sims of the U. of Tennessee on the loss of farmland across the region highlights the economic value to integrating into land use plans ways to prioritize low density and agricultural based land uses.⁶

A Floodplain Resiliency Plan is Needed for this area and likely in others

We would like to work with the city, county and agencies on a floodplain resiliency plan for the Harpeth River and West Harpeth river from downtown Franklin to Highway 100 Davidson county line as a key need for any future development in the rural Northwest quadrant of Franklin. A floodplain resiliency plan would have a goal to reduce property in the 100-year floodplain in subdivisions like Rebel Meadows, Fieldstone Farms, Monticello, Cottonwood, River Landing and others that were designed under prior rules and conditions. A floodplain resiliency plan needs to include climate change predictions to prevent future flooding, address current flooding caused by man-made conditions (such as roads, bridges, culverts and older development requirements), and protect the natural river floodplain by limiting cut and fill. Designing resilient communities is planning for the future and is a major lesson from the May 2010 flood especially as this region continues to grow.

Sincerely,



Dorie Bolze
CEO
Harpeth Conservancy

Cc: Franklin Board of Mayor and Aldermen
Eric Stuckey
Vernon Gerth
Planning Department staff
Engineering Department staff

⁵ "Giddy up: Equine industry has major economic impact on Williamson County," Williamson Herald, May 19, 2010.

⁶ [The economic value of open space in the Cumberland Region](#), Dr. Sims, May 2018. Funded by Cumberland Region Tomorrow.