

MINUTES OF THE STORMWATER MANAGEMENT COMMITTEE

Meeting of: Wednesday, November 29, 2017
Leawood City Hall, Main Conference Room

COMMITTEE MEMBERS PRESENT:

James Azeltine, CHAIR and Councilmember Ward 4
Debra Filla, Vice Chair and Council Ward 1
Lisa Harrison, Councilmember Ward 3
Skip Johnson
John Kahl
David Lindley
Jim Rawlings, Councilmember Ward 2
Curt Talcott

COMMITTEE MEMBERS ABSENT:

Carole Lechevin

STAFF PRESENT:

David Ley, P.E., Interim Director of Public Works/City Engineer
Julie Stasi, Administrative Services Manager, Public Works Department

GUESTS: (by order of sign in sheet)

Chris Matthews, 10525 Pawnee Lane, Leawood, KS 66206
Wes Kautzi, 10521 Pawnee Lane, Leawood, KS 66206
John Moffitt, 10521 Mohawk Lane, Leawood, KS 66206
Phillip Peck, 10528 Cherokee Lane, Leawood, KS 66206
Sheri Rosenbaum, 10520 Mohawk Lane, Leawood, KS 66206

The meeting was called to order at 7:30 AM. Chair Azeltine began introductions. Committee Members, staff and guests introduced themselves.

FIRST ITEM OF BUSINESS: Previous Meeting Minutes

ACTION: Lisa Harrison made a Motion to approve the past Minutes of October 25, 2017.

John Kahl seconded the Motion to approve. All members in attendance were in favor.
Motion passed; Minutes approved.

SECOND ITEM OF BUSINESS: Ascertain if additional studies need to be conducted subsequent to July/August 2017 Flood Events.

David Ley -Advised the group, that if they had not heard, we are going to be busy in the next six (6) months talking about flooding areas in Leawood. Today we are going to discuss an area that is North of I-435 between Mission Farms and Lee Boulevard. Dave gave a bit of history and displayed FEMA Maps of the area along I-435 between Mission Road and State Line Road. When Interstate 435 was constructed in some areas the levy is very high (20 feet or so) but when KDOT did that, they installed culverts under I-435 to drain the area north through I-435 and then south into the Park. That was in the 1960's. The areas flooding are single family residential homes. There are no flap gates on the culverts under I-435. So when the creek rises through City Park, the water backs up underneath I-435 and floods the area on the north side. Dave shows the current FEMA Flood Plain. The area north of I-435 had been identified in previous Flood Plain Maps. Showing the original Flood Plain of 1977. And the four cul-de-sacs with most of the flooding. This was identified back in 1977 as a flood area. I-435 was constructed 15 to 20 years prior to this map.

Lisa Harrison-Those homes were built before 1977, knowing they were in a FEMA Flood Plain?

David Ley-No, they were built prior to the FEMA Flood Plain maps. The homes were built prior to the

Flood Plain being identified.

Lisa Harrison-They didn't do that type of identification back then?

David Ley-Not in Leawood. The first map we received was in 1977.

John Kahl-FEMA started in what, 1973?

Curt Talcott-Somewhere around then. Yes.

David Ley-FEMA came through Leawood in 1977. Recently, staff sent flood questionnaires out to forty-three homes North of I-435 and south of 105th Street between Mission and Lee Boulevard.

Approximately a dozen homes or so that we know of have had flooding from either their back yard, the storm sewer or culvert, or the street area. (Staff had a map of the survey area and results in the packet and attached to these Minutes.)

Curt Talcott-Where is the flood zone?

David Ley-(*pointing to map areas*) In 2010, the FEMA Flood Plain Maps were updated. This area had been in the FEMA Flood Map, if you look at the maps prior to 2010. When Mission Farms was constructed it did help block some of the flow because some of the flow was coming along from west to east along the north side of I-435. When Mission Farms was constructed it was elevated and it does act as a levy blocking the flow from the west.

Jim Rawlings-Did both events cause flooding? I know the last one did.

David Ley-Answers back to us were that Yes, they flooded July and August of this year. We did receive pictures from a resident today that we will pass around for the committee. These new photos are from 10521 Pawnee Lane and show the magnitude of the flooding. Photos circa: 1983-1984 and 1986-1987 (attached to these Minutes).

Lisa Harrison-It is my understanding that FEMA is redoing all those maps. Reading recently about a Houston situation in particular. If they are doing the Texas maps all over again, they will most likely be doing them everywhere else.

John Kahl-We already redid ours. We had a high level of detail back in the 2000's.

Curt Talcott-FEMA is not doing them, local communities are doing them. Johnson County's were redone around 2009. And the SMAC Program did do those. Kansas City, it really is up to most local funding or be up to the County to decide.

James Azeltine-Do we have any idea how often that is taking place? Over the years?

Curt Talcott-1977 and 1991 I think.

David Ley-It was 2001 when we had some updates.

John Kahl-They primarily update them if there has been a lot of development in the watershed. But if you are out in a rural area that looks the same today as it did 20 years ago more or less they are probably not going to redo those anytime soon. But in an urbanized or developing area where there has been a lot of change and calculations on how the water is going to flow, they will consider those to redo.

Curt Talcott-Indian Creek is kind of reaching the end, out in Olathe. I wouldn't expect them to redo the map anytime soon.

Lisa Harrison-Okay. But are you comfortable with how recent our information is? And the change in the weather patterns and the rains and severity of everything?

John Kahl-The County spent about 25 million dollars to remap the whole county. I know that because it was started before I left my position as the Stormwater Engineer at the County in 1998. That is kind of when it first got started. And what the County did was at a much higher level of detail than most of the studies that have been done for FEMA. The purpose behind the rework: Overland Park had

discovered a bust in the old FEMA Model. In Tomahawk Creek. Someone had made a mistake and transposed a decimal point and took the slope of the creek from 1% to 10% and sent the water super critical. And then they thought the water was much lower. They did not discover it for 20 years or so and when they did discover it, they realized the ones they had put two feet out of the Flood Plain were actually two feet into the Flood Plain.

David Ley-Like our Tomahawk Creek Parkway.

John Kahl-Tomahawk Creek was the first creek study that was done and so we wanted to go through with a much higher level of detail; taking into account actual typography. Normally when FEMA is doing this with the watersheds, there is only a little bit of money. So they do not have the ability to get all the investigation and exploration into the size of the culverts and the little things that relate to them. At the bigger picture level it is reasonably accurate. The studies that were done were much more precise than what had been done previously; whether or not they are accurate is a different story.

David Ley-Shows how a FEMA Map looks, it is hard to discern which properties are flooding.

Debra Filla-How does the bigger question of development upstream –how do they account for the fact that there is continuous developments upstream from where we are? Do you feel like you have gotten enough precision in the developments where they are retaining their water? Or do the developments keep sending it downstream?

Curt Talcott-It is a mixed bag. It is up to the individual communities. Olathe has fairly up to date stormwater detention. Not in this watershed, we have places like Edgerton and maybe they are not quite up to date as others. Not everybody is up on the current APWA Standards which most communities in Kansas City use. But not all of them.

John Kahl-But this watershed is us (Leawood), Overland Park, Olathe, and all of those communities are doing a good job.

Debra Filla-So you have it pretty well figured out.

Curt Talcott-And this watershed is pretty well developed. You will not see a lot of redevelopment at this point.

Chair Azeltine-The question we are faced with this morning is in regards to these dozen or so houses. Does it merit the City commissioning an engineering study to see if there is a potential SMAC Project?

John Kahl-Question for Staff. Has not looked at the SMAC rating system for a long time and does not know what all has changed. If you run any of this through that to see if this would warrant enough points to get on the list?

David Ley-Yes. Typically you need two (2) homes and a street. There would be 100 points on this project with the street.

Curt Talcott-Frequency, multiplier. It has an impassable street, multiplier has more than ten homes I think. It would be well over the 100 points.

David Ley-The first step would be to do a Preliminary Engineering Study (PES). And we would have to make sure we are over the 100 points; but we feel we are. The county would then fund 75% of that study. So if it was a \$30,000 study, possibly the City's cost would be \$7,500.00. That would be the first step. As part of the PES, the Engineer would be required to determine improvements that would solve the flooding issues and then the County (if it met the points) then the County would fund 75% of that construction; funding the cheapest option.

Curt Talcott-And one of the options would be the buyout of the homes. Yes they enforce that now.

David Ley-That is typically the highest cost.

Curt Talcott-If it does end up being the lowest cost then the County will fund up to that cost and the City is responsible for choosing another alternative for the difference between the lowest cost alternative and whatever the alternative is that is used.

Debra Filla-And we recently purchased a house on a project in Leawood Heritage. How many have we purchased?

David Ley-That was the first home. We had the creek running up against the house. We took the house and realigned the channel. Each property on the side of that house received a little more yard.

Jim Rawlings-With all the engineers in the room, in looking at this if we want to take on a project, is there any solution you guys can see besides buy-outs? Like we have two pipes going underneath I-435. Are we looking at a couple more? Would that help solve the problem? How long would this take are we getting into State and Federal issues because of I-435?

David Ley-We would have to work with KDOT. One of the options would be to install flap gates. I do not know if the County would fund that unless we provided another protection method. The flap gates work if the creek is rising and it is not raining locally. But if it is raining locally at the same time the creek is rising, those flap gates will shut, and then you can't get the rain water out without a pump station. So flap gates plus a pump station would be one option. We do have flap gates just east of here about a quarter mile. We've been out to that location probably five times after it has rained and the water on the back side of the house side of the levee has typically been between 2 to 4 feet lower than Indian Creek.

Another option could be to connect the storm sewer pipes on the south side of I-435, keep the pipes closed with no area inlets, and drain the stormwater further downstream to where water can drain out because the 100 year flood is at a lower elevation. This would require two thousand feet of storm sewer.

Comment from residents:

Chris Matthews-The pool didn't flood. If you look at how high the water rose on the baseball fields to the west of Lee Boulevard. The pool is right there. All the soccer fields to the east were dry. I do not know a lot about water but the soccer fields are key pieces of land that you could direct water to. If it was a critical level, we'd rather have it over there then back it up towards the houses. It might get silt on them but that is better than homes flooding. There is a lot of room over by the soccer fields.

John Kahl-Maybe it could run under Lee and direct it to the ditch on the east side of Lee?

David Ley-There is not a large ditch there but you could potentially extend the pipe and run it along the north side of the soccer fields and discharge it. That might be one solution. But that would be running the pipe up quite a long distance. There are some options/solutions; 3,000 feet to get from the upstream culvert and the other option would be to bring it down maybe 3 or 4 feet lower. The 100 year flood elevation is 4 feet lower in a location here near the tennis courts.

David Ley-The other thing we would need to look at is even though this is built up, there is another culvert that is crossing just south of Mission Farms. And there is a berm that we would need to make sure that is sufficient to keep the water from backing up and heading that way also. That would be part of the PES.

John Kahl-These are all things that whoever does the study would have to evaluate and work out in detail. John asked about how the PES is funded. The City fronts the money and then is reimbursed at a later date.

David Ley-That is correct, yes. The County reimburses us for the study if it is eligible for the PES.

Chair Azeltine-reminded everyone that we have a 1/8 cent sales tax that funds stormwater projects and the Public Works General Budget has a stormwater fund. If the Council would approve a project then every other year it cycles.

John Kahl-Does want to ask the residents that are here. Who has lived the longest in their residence and for how long?

Wes Kautzi, 10521 Pawnee Lane-We have lived in our home since 1980. At that time when we purchased the house we were supposedly not in a Flood Plain. Now all of a sudden we are in one. The map you showed earlier, touches my back yard. The house does not have to be in the Flood Plain. But as long as the property is, and our property was- and that is where the water came. The water has not come inside like Chris's has but it has come up to it. Concern is how do we get the water on the other side of I-435? I've seen Prairie Village and Overland Park getting water out of their area and I believe that is part of our problem right now. They have successfully gotten rid of their water but we are backing up. I don't know what the relationship is with us and Kansas City Missouri but the water is not going through. We have two creeks beside us and we are backing up. Not sure how it can clear out but it has no place to go.

John Kahl-Nothing that we are going to be able to do is going to change the flood plain elevation on Tomahawk and Indian Creek. There is too much water and there are too many other factors and our influence would be too small. With the recent flooding of the area near Coaches in Kansas City at 103rd & Wornall, maybe there is a chance that KCMO will become eligible for funding for a massive project.

Curt Talcott-Unfortunately to get federal funding there needs to be a lot of Commercial loss. Residential is not usually an item that warrants the federal funds.

John Kahl-To Mr. Kautzi-your questions would have to be addressed as part of the Preliminary Engineering Study. One of the requirements is you can't make a problem worse somewhere else by fixing your problem. So the engineers that do the PES will have to do the necessary calculations to show that we are not just creating a problem somewhere else by fixing ours.

Chris Matthews, 10525 Pawnee Lane-I am on the culvert. If it comes up four more inches it is on the main floor in my house. The water was 7' high in my basement, 8' at the culvert. We had about \$50,000 worth of damage to our basement that is not recoverable. I am in the planning process to do a major addition to my home. That is something I would like to do but I'm not going to redo my basement until something is done. It was scary and it was a lot of water. It was a tremendous amount of water, the fences were underwater. I love the neighborhood and I'd like to stay. We have challenges as we abut the highway and in terms of property value with highway noise and now flood water. Those are pretty big things to overcome. But I don't want to lose my house, I like where I live and I do not want to see the neighborhood get hallowed out. And don't want to see where properties are not maintained. It would be great if the soccer fields could flood or put it somewhere over there that clears us out for a short term fix without backhoeing all the way down to Little Blue River.

John Kahl-The procedure that we are talking about going through, just so everyone knows, it will be 2+ years before anything is done. Nothing will happen right away. We would have to go through the study and then once you do the study, you know where you fit. Then we have to wait for our turn in line with the County's funding order.

Curt Talcott-And I will tell you this if they put your house back in the Flood Plain you probably will not be able to do an addition to it.

David Ley-If he came through we would look at it as being in the City Flood Plain. They would be required to follow those building requirements. The Flood Plain requirements and the City's are the

same. The lowest opening has to be two (2) feet above the 100 year event.
Jim Rawlings-Looking at the time frame, I think John answered my question.

David Ley-I believe 2020 is the first year we have funding available.

Wes Kautzi-Comments about flood insurance. I do not want to be in a flood plain again. The insurance never makes you whole. I would rather have the problem fixed then to be in the flood plain and have to buy insurance. Flood Plain is not the solution, fixing it as best as possible would be much better than buying insurance.

Curt Talcott-Explaining his earlier comment. If there is a new study that shows flood elevations, they will incorporate that in the next updated map.

David Ley-If it is just a flap gate alone that would not prevent that area from being excluded from the Flood Plain unless you have pumps.

John Kahl-You are still in a low area. You can still get flood insurance even through you are not in a flood area. Even if we can get you taken out I would strongly suggest you consider maintaining flood insurance because if you don't have it and you get any kind of flooding then that is better than no coverage.

Curt Talcott-There is a designed storm and there are always storms greater than the designed storm. Especially in an area like this. There will always be something bigger than what we designed for, somewhere.

ACTION: John Kahl made a Motion to recommend to the Council that the City move forward with a Preliminary Engineering Study for a project in this area.
Curt Talcott seconded the motion. All members in attendance were in favor. Motion passed.

John Kahl-Has a question about the timing and procedure for soliciting for this PES. When based upon what you know, is this something that will probably go in Spring or Summer, Fall?

David Ley-As soon as we get approval through the City Council, we would hire a firm. Staff will contact a firm to do this it is probably in the range of \$30,000 to \$40,000 approximately what we will be looking at.

John Kahl-And in the past, some of these projects, but maybe not with the Preliminary Engineering Study, my guess is the Stormwater Committee has served as the selection committee for those firms. I'm just curious if you anticipate that for this? Or not?

David Ley-I think it's a small enough project that we could probably be okay with Staff selecting a firm; instead of having firms go out.

John Kahl-Just curious for discussion. Certainly when projects get big enough and the design gets big enough then you go through a more rigorous process to select, I just didn't know with the PES routine was. And I didn't know how rigorous in terms you were with evaluating and selection of these type sort of things.

James Azeltine-In the end it probably will cost the City what, \$7 to \$10 thousand dollars. So probably on something like that the best thing would be we wouldn't go through any kind of process; and just let staff figure that out. Unless the Committee feels like we should. We could recommend something.

David Ley-Phelps did the original study. Olsson just completed the updates to some of the areas that were taken out. So they have updated models, so those would probably be a couple good firms to talk with initially. Or if you have other suggestions.

John Kahl-No. I was just curious if we were going to have to go through a selection committee process. Sometime later this year or next year.

James Azeltine-We ranked them at one time. So that kind of helped us with the big projects.

Jim Rawlings-We all received books and looked at them.

James Azeltine- We've already kind of offered some guidance to staff in that regard I believe.

Chair Azeltine asked Julie when the next meetings would be.

Julie Stasi-Advised we do not have a meeting in December because that is right after Christmas. We have sent out a poll for January 31st, the last Wednesday of the month. We have an assignment for that date. And then we have a meeting in February, the last Wednesday in February. We do not have everyone yet, but it does look like we have enough for a January meeting.

Chair Azeltine-Are we taking the Corrugated Pipe Project to one of these?

Julie Stasi-That is another meeting; not the January or February. Maybe a March meeting.

Chair Azeltine-So having no meetings last year, now we are starting to have a lot of meetings especially with the corrugated Pipe Replacement deal. Any other comments?

Deb Filla-Asked about a project near 82 & Wenonga that a resident had mentioned.

Behind Leawood Baptist on a cul-de-sac.

David Ley-That is actually a meeting already set up with staff next Friday. Dave is meeting with the resident. It might be one that gets referred to the group. After I meet with him, we will look at that.

Lisa Harrison-Asked if we had the resident from 126th & Roe Area, the back yard.

David Ley-He is in the February meeting. We are looking at inviting 20 residents that abut that channel, so we can get in their comments.

Staff advised the recommendation today would be planned to go to Council in January of 2018, (December's Agendas are already set).

Chair Azeltine adjourned the meeting at 8:10 AM.

Minutes transcribed by: Julie Stasi, Leawood Public Works Department
four (4) attachments 2 maps & photos



RECEIVED
NOV 29 2017
PUBLIC WORKS

10521 Pawnee
VIEW NE 7/17



RECEIVED
NOV 29 2017
PUBLIC WORKS

10521 Pawnee
VIEW SE 7/17



Circa 1983-84



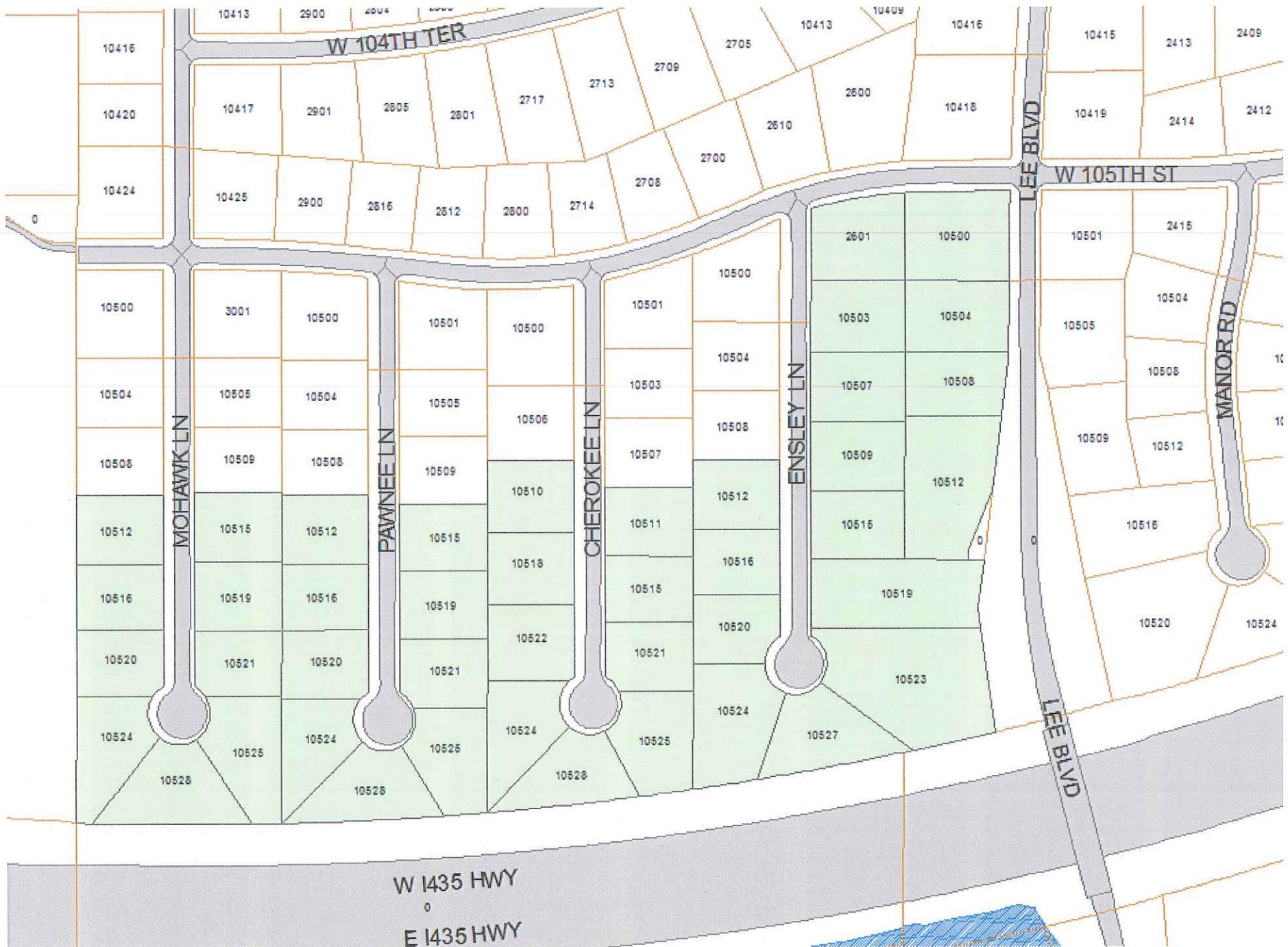
Circa 1986-1987

10521 Pawnee

RECEIVED

NOV 29 2017

PUBLIC WORKS



2017 July and August Flood North of I-435 and West of Lee Blvd



Legend

- Storm Sewer Line
- No Flooding
- Flooding from backyard
- Flooding from storm sewer or culvert
- Flooding from street

