MINUTES OF THE
STORMWATER MANAGEMENT COMMITTEE
Meeting of: Wednesday, March 29, 2017
Leawood City Hall, Main Conference Room

COMMITTEE MEMBERS PRESENT:
James Azeltine, CHAIR and Councilmember Ward 4
Debra Filla, Vice Chair and Councilmember Ward 1
Lisa Harrison, Councilmember Ward 3
John Kahl
Carole Lechevin
David Lindley
Curt Talcott

COMMITTEE MEMBERS ABSENT:
Skip Johnson
Steven Kaster, Councilmember Ward 2

STAFF PRESENT:
Joe Johnson, P.E., Director of Public Works
David Ley, P.E., City Engineer
Julie Stasi, Admin. Services Manager, Public Works Department

GUESTS:
Tom Jacobs, City of Lenexa Kansas
Kristen Leathers, Affinis Corporation
Rick Worrel, Affinis Corporation

Chair Azeltine called the meeting to order at 7:30 AM.
Introductions of members, guests and staff.

SPECIAL PRESENTATION: Presentation of Award
Guests were in attendance from the Affinis Corporation to present an award to the City on a recently constructed stormwater project.
Debra Filla asked staff and Affinis to describe the project first to the group as some may be unfamiliar with the Project.
Dave Ley displayed a map of the area. Leawood Heritage is east of Mission Road and this was north of 89th Street near 87th & Ensley/Cherokee Lanes. Really what started this project, back in 2008 or so, the County redid all the FEMA Maps. We were doing a residential street reconstruction project and noticed the map had this whole area pretty much underwater, the streets and several properties. So we held a public meeting and it was one of those meetings where nobody wanted any projects. We asked about what projects they wanted, residents thought it was fine with what they had. So Council told us to just go in then and do box culverts and just take care of the roadway flooding. When we went back in and looked at it, we still ended up having to do half of the channel. So we met again with the property owners and finally got their buy-in on it.
Kristen Leathers-There were around 35 property owners. There were around twenty-two outright that were heavily impacted. The City went through a preliminary engineering study through the County.
Joe Johnson-We went through several options; enclosed channel, open channel and we also purchased one (1) residence that was right where our channel was flowing to. We finally came to a solution. This was about a year and a half process working with the neighbors. Once that was done we hired Affinis to
do the design and construction. We did go through the State Process with approval.

Rick Worrel—Described the award application process and provided hand-outs of the submittal for reference. The American Council of Engineering Companies awards the award. From a uniqueness and innovative application standpoint you can see as much of an impact in the back yards through this project. We worked closely with property owners and part of the design we actually did throughout most of the work. The channel bottom you can see was constructed and designed to carry vehicles down in the channel to avoid as much construction in the back yards as possible. Secondary category evaluated was future value to the engineering profession and it was such a public project. Because of the impact of the property owners, one of the things we did was meet with the property owners and make sure they knew what was going to happen in their back yard.

Kristen Leathers—we also worked with the home owners on their fences and from the street level you can see that coordination.

Rick Worrel—Form liners, walls were needed to look like stone, split rail fencing that Kristen just mentioned were all added. From an economic standpoint obviously it was a smart decision from the City’s standpoint to leverage SMAC dollars from the County to provide a 75% match. Project complexity was another category that the project scored on. The construction was down in the channel. We designed the bottom of the channel to carry the vehicles needed to travel in there, so as not to interrupt residence’s back yards. Utilities are always a big concern and it was very difficult to do those relocations in the channel. We worked with the utility companies during construction to adjust and modify the design to avoid conflicts with the different utilities; which was a big cost savings as well. The final grading was on successful fulfillment of client/owner needs. Your primary goal was how the residents acted with the final design and construction process. We had a very positive response from the property owners. We believe because of the one-on-one meetings and they felt we listened to them. We added aesthetics treatments to the project and we did our best to limit the construction impact to the properties. It was a positively received project.

It is a great pleasure of mine to recognize Joe Johnson, Director of Public Works, David Ley, the City Engineer, and Tom Klotz, Construction Inspector (not here today) for their engineering excellence in administering and constructing the Leawood Heritage Stormwater Project. Projects like this take leadership and direction and a good project team by the City. They anticipated challenges and provided solutions throughout the Project and clearly ACEC (American Council of Engineering Companies) agrees that all of these were met. Affinis Corporation in particular appreciates the trust and confidence that the City has in us and please know that we are committed to a great quality of life in Leawood. We know you have a busy agenda and we appreciate you letting us be here this morning.

The Affinis Corporation presented City Staff Joe Johnson and David Ley an Engineering Excellence Award recognizing Affinis Corporation and the City of Leawood, Kansas. The award is presented and selected by the American Council of Engineering Companies of Kansas. In part the award is inscribed: “Winners of the 2017 ACEC Kansas State Competition for Innovative and Outstanding Engineering of Leawood Heritage Stormwater Improvements, Leawood, Kansas” (Award Executive Summary will be attached to these Minutes with photos of project area).

Joe Johnson—we appreciate what Affinis did on the project too. You made it a very successful project. We had good engineering and throughout the whole project, Affinis was able to be out there. We ended up with a good contractor V.F. Anderson and we had a really good set of plans that made life much easier.
Joe Johnson and David Ley displayed some before shot photos and after for the Committee. We had some concerns, but when we were done everything was great.

Kristen Leathers-Just so you know, I left a copy of the award application (the submittal we did) for you to review; which gives a good description or narrative of the project and then there are some before and after pictures in there as well. A lot of the credit does go to Tom Klotz, the City's Construction Inspector and in working with the contractor for really addressing the resident needs. Because they were out there every day and when a resident had an issue, if they needed our help they obviously called us. They did a lot of work of just making sure the residents had access and their questions were answered and responding to them quickly. So that kept Joe and Dave’s phones from ringing I believe a lot. Just by making sure they were happy. It was challenging but it was a lot of fun to do and see the end result. It was well worth all the effort.

Joe Johnson-This was probably one of the most invasive stormwater projects we have had to work with. It went very well. Even during construction, the residents were good to work with. In getting easements, that went well.

Carole Lechevin-So there used to be a house on the project. Is that property now public property or how did that work?
Joe Johnson-We divided the lot. We kept land where the channel is at as an easement to get in there. We gave the south half to the house on the south and the north part to the other house. One of the houses had sat vacant for a couple of years, so that is a new tear-down project.
Kristen Leathers-There is a sanitary sewer line along the channel too, so by splitting it we gave each side a little more room to make a more buildable lot. The sanitary parallels the channel in another location too and that takes up a lot of room.

David Ley-The contractor was V.F. Anderson and this was the first project we had used them. We were really impressed with them. They actually went above and beyond. During construction, the channel had water in it. They started off renting a pump and they didn’t get just any pump, the one they got you could not even hear the thing running. If you were inside the house, the pump was running 24 hours/7 days a week and you could not hear it. It was very expensive. The contractor liked the pump so much; he was renting it at the start of the project. He liked it so much he ended up buying it.
Joe Johnson-They pumped a lot of water around their work. There is a concrete bottom. Once the concrete bottom was done it worked out. It was designed to carry all of the construction equipment and so once the bottom was in, they drove up and down it as they did the walls and poured the walls. Pouring the walls was fun, they had a big boom on the concrete truck hanging over the houses.
Kristen Leathers-The project was started in the spring and finished up in September.

FIRST ITEM OF BUSINESS: Previous Meeting Minutes
Lisa Harrison- Motioned to approve the Minutes from the last meeting Minutes of August 26, 2015. [Not a TYPO, year was 2015].
Curt Talcott- seconded the Motion; all attending members in favor. Motion passed.

Meeting Agenda Amendment.
Debra Filla recommended the Meeting Agenda be amended under NEW BUSINESS, adding a couple items: Listing the assignment to “Review the matching dollars available from the Johnson County BMP
Cost Share Program. And adding mention of our Guest Speaker-Tom Jacobs from the City of Lenexa Kansas to speak about what Lenexa does with their County’s Cost Share Program.

**ACTION:** Chair Azeltine, Committee Members and Staff were in agreement for the revision to the Agenda. Amendment will be made to Agenda for future historical reference.

**SECOND ITEM OF BUSINESS:** Community Gardens-Review matching funds for Stormwater Best Practices Program from Johnson County and Guest Speaker, Tom Jacobs, Stormwater Engineer City of Lenexa, KS. Mr. Tom Jacobs, Stormwater Engineer with the City of Lenexa was invited to speak to the Committee about how Lenexa handles their JOCO Reimbursement BMP Cost Share Program.

Joe Johnson-Advised at the last council meeting we were assigned to talk about our County Cost Share Program. This is a program where cities can fill out an application and ask for money (up to $10,000) and then the County will participate with the cities (we have an application); the City has been doing this I think this is our fourth year. Property owners are eligible for reimbursement for rain barrels $75.00-and you can have two rain barrels or up to $1,000 on rain gardens, bio swales, things like that. So if you spend $3,000 you can get $1,000 and then last year we added, the county allowed to add trees to this program as a reimbursable item. I think it's $100 a tree and you get two trees. On our application there is a list of trees that are allowed under the cost share program.

Debra Filla asked Staff to drive through the web site and show the group where this is located. It is important for us to find it and see where it is actually. I went to a meeting of the Verona Gardens Homes Association and talked about this and then I got an email that said they couldn’t find it.

Carole Lechevin-And many people do not know what BMP means.

Joe Johnson-when going to the Web site, if you go under “Resident” “Stormwater Info”, then it brings you to a page with several choices up at the top “BMP Cost Share Program” is listed.

Debra Filla-Added that you can go to the main page and go under HOA, and then you can find it there under “Conservation”.

James Azeltine-Is guessing there may be something on the County’s web site as well?

Joe Johnson-Well it really is not up to the County, it is more the City’s Program. The County participates to provide the City’s with the money.

Debra Filla-Asked about the dollar amount and if that had changed. There is some confusion here as to how much is provided. The match on rain gardens up to $75. And a 50% match on trees up to $150-you just said $100, did that change? You said you could get two? I’m sorry, reading this, is this right?

Joe Johnson-There is a 50% match on BMP’s, up to $1,000.00 for rain gardens or native planting bio swales/stream buffers, and a 50% match on rain barrels, up to $75 each (Limit 2 per application).

Debra Filla- Can we look at this wording? I thought it was a 50% match on rain barrels. Rain barrels has always been $75 and then we added it last year we were talking $100 per tree.

James Azeltine-The referral from the Council was basically to come up with ideas perhaps to help improve interest and visibility of this program. Since we have invited Tom here today lets get his input on what they do in Lenexa.

Tom Jacobs-Tom works for the City of Lenexa Kansas and brought handouts of his information on their BMP Program. Tom advised he has not had anyone ask for reimbursement of trees yet. Lenexa has been fairly successful in administering their BMP Program. Handouts include some ideas for advertising. The application form itself is very similar to Leawood’s.
Lenexa has been in the program since 2012 and we have had a steady increase in dollars of use every year. Last year was our most successful year to date. As Joe mentioned, the County gives $150,000 available to split up with all the cities in Johnson County for this program to request up to $10,000. Last year we used our $10,000 and we went back and asked the County for additional money and they gave us another $5,000. We barely touched that last $5,000 but nevertheless we did go over $10,000. This year they said we could ask for $15,000 up front, so that is what we are asking for this year.

Joe Johnson-The one thing Lenexa does, they also supplemented another 25% so it is a 75% reimbursement with the City of Lenexa. So when he talks about 75-The County for our program is what you see on our display. Cities can go up and beyond that. And Lenexa also kicks in another 25%. Tom Jacobs-So we get $15,000 from the county and then we add another $7500 and have a total of $22,500 to give out.

Tom Jacobs-When we advertise one of the things we do is find a place where these items are sold. We go to COSTCO and we tell them we have this great program and here is a flyer for you, could you put these out by your rainbarrels. So a Lenexa resident walking into COSTCO sees a $100 rainbarrels that they can quickly figure out is only going to cost them $25 to buy that rainbarrel. That is a pretty good incentive for them. We have done 53 rain barrels in the first few years of the program. We are already taken off this year, we have 19 rain barrels already this year. That is just getting started.

Lisa Harrison-What is the nursery at 108th & Roe?
David Ley-Suburban Lawn & Garden.
Lisa Harrison-Is that about the only nursery in Leawood proper? Overland Park, they would probably advertise for us they are so close. I can see a lot of Leawood people going into Suburban, either location to buy trees-it is so close (Overland Park and Martin City).
Tom Jacobs-We advertise at Costco, Sams Club, Westlake Hardware and Suburban Lawn & Garden.

David Ley-Another place would be the Hardware Leawood has at Ranchmart at 95th & Mission.
Tom Jacobs-We also go outside to I think Family Tree Nursery. Anyone that sells Lawn & Garden or rainbarrels.

James Azeltine-Is that most of your promotion your flyers in the stores?
Tom Jacobs-Actually I have a section on that. Lets talk about work flow. First thing is the advertising. Next, people have to apply and someone needs to review that application. We also have given them an opportunity to apply online. They can fill out and submit. The application goes to a special mailbox. So there are a couple options; they can print off the form or fill out the form on line and submit. The application either way comes to Tom who then reviews. Rainbarrels are straight forward, nothing to review really. Native Plantings get a little more complicated because people are not as confident about what they are planting. A lot of times they will ask for advise. So I will go out and visit their yard or we will talk about it and I will give them some tips. Ultimately they need to put together a plan and send it in to me and I then approve the plan. Once that is done, they can then complete their project, install their rain barrel or plant their plants, whatever it is. And then they send in the receipts.

The receipts are then verified according to the approved plan and then we send them their check.
Debra Filla-asked about the W9 form mentioned in the handout.
Tom Jacobs and Staff at Leawood-advised that the Finance Departments require a W9 on Vendors/or whoever is getting a payment to submit a W9 form.
Lisa Jacobs-Asked if a Homes Association could apply for this.
Tom Jacobs-Yes. We have had one (1) homes association complete a project and one (1) church.
Joe Johnson-The limitation is-the project is not eligible to be reimbursed if it is part of a development plan. So if a home is coming in and there is reconstruction of a house and part of that process they have to do a rain garden or something to control water quality, that does not qualify for this program. But any property owner, HOA, Commercial, residential if they just want to do this outright, they are all eligible for this program.

Tom Jacobs-Advertising the program up front. We have a newsletter that goes out to everybody’s house and they always get an article about the program in their newsletter. We have an E newsletter that goes out I think every two weeks, so we have that a few times over the year. This year we advertised on “Next Door” an ap. That was incredible.
Carole Lechevin-The County is on that too.
Tom Jacobs-They actually did not tell me that we had something on Next Door and all of a sudden I started getting all kinds of calls, and I had to ask someone what had happened. Of course we have a web page like Leawood has. We have a library branch and we have a display there with a real rain-barrel with all our flyers and posters.

Julie Stasi-Hey, we have a Library right next door.
Lisa Harrison-Who is our Public Communications Person? They are going to be busy.
Joe Johnson-We do not have one. That is the biggest problem.
Tom Jacobs-The posters that we put up around City Hall or the Community Center help.

John Kahl-Out of curiosity with looking at applications and visiting with the homeowners and your decent number of applications. Administratively, how much staff time do you commit to something like this?
Tom Jacobs-Mosly I am the guy that does this. This time of year I will probably spend a couple hours a day running through these items. I do have another guy that if I start-particularly as more time is taken up where I have plans to review, I will ask for another person to help me out and take a few if I get overwhelmed with it.
John Kahl-and what is your role?
Tom Jacobs-I am the Stormwater Engineer. So I do the Stormwater and the CIP Projects, Administrator of those for Lenexa.
David Ley-And you have a Utility Tax too.
Tom Jacobs-Yes.

James Azeltine-Anything else you would like to add?
Tom Jacobs-A couple, we have the Healthy Yards Expedition. I do not think you all participate in this, as it is held north in Shawnee. That is another avenue. The Healthy Yard Expo is put on by Kansas State and Johnson County and there is a booth. A place for residents to come and learn about how to have a healthy lawn and lawn care. It is like a Lawn and Garden Show. As far as staff time with advertising, most of this information is reusable. There is no year printed on the posters, we use the same posters every year. We have flyers about Native Plant Vendors, Native Plant Guides. I did want to mention the list of Native Plant Vendors is good because it is really difficult to know what works. Some one was asking about what is Native. There is a difference between a Native Plant and a Cultivar. That is the hardest thing – to get people to understand that they cannot go to Home Depot and
buy their native plants. Those are *Cultivars* (plants bred to change and enhance certain qualities such as color or size). We have given them all the information they need to know where the native plants are sold and when they are sold. There are lots of web sources where the can pick there and have them shipped to their house.

Debra Filla—Can you explain for us why is native so important?

Tom Jacobs—A native plant is specifically designed by nature to do all the good things that it does. It put down the deep roots to help soak up the water and gives off the correct pollen, sugar that the insects and animals, bugs need to survive using that plant. So when they start to change the plant, a hybred you might lose some of those qualities. You don’t really know, but you might and often times you do, so there for example there can be a butterfly milkweed that is perfect for Monarchs but it’s altered and suddenly the Monarchs do not get any nutrition out of it and that is not good.

Carole Lechevin—One of the big chain retailers that grow their plants in Texas and bring them up in early spring. They are using a seed that maybe is specific to Texas, but maynot survive a hard winter here and just like in the different types of polonators. It has been really popular to plant a tropical milkweek, which the Monarchs love. And those grow farther south. But we we plant them here and the butterflies visit those flowers, they get a signal that “hey, we can stay” because its nice and warm here. Because that plant is typical farther south. So if they don’t get the message “lets move south” because they are not visiting a plant that is absolutely native to this area. It is called an Eco-Region. Our eco region is very different from Texas, Minnesota, so you want plants that are grown and bred in places of this region. Places like “Missouri Wildflowers” (one of the bigger vendors in Missouri) they are specifically growing the plants specific for this area; where you will find odd things like Paw Paw plant trees and things like that with more variety than what you would find at Suburban or say a Home Depot.

Debra Filla—Does the County have a list of trees? Our arborists put together lists, but wondering about the County.

Tom Jacobs—Has not had to review any trees yet, but he does check when he reviews the plans and he checks the database on plants and trees and looks at the USDA Native Plants data base.

Carole Lechevin—Are the extension offices more up to speed on that yet? They tend to be very Orenamental. Has read recently if you plant a native Oak (and there are lots of native oaks here) you can provide habitat for birds, etc., but you will find 500 different types of insects on an Oak where as a Ginko tree, which is a great street tree and very tough and tolerant may provide habitat for 5 insects. So it’s huge in terms of needing to provide the habitat that are getting the insects because the birds eat on the insects, not just seeds. Especially young birds eating insects, not just seeds.

Tom Jacobs—Shared a few photos of completed projects. One rain garden was worked into some existing trees that kept getting water around them. The resident planted around the trees and they placed rocks there to slow things down. There was a resident concerned about the algee on his pond, so he created a floating wetland of plants and another is foundation area around a home, of plantings. Native plants depicted here, we really do not differentiate between native plants or rain gardens. Only in the reviews. But if they call it a Rain Garden then we pass it down to stormwater.

Debra Filla—the one worked around the trees reminds her of areas in The Cloisters off of 83rd where their backyards have a continual run down their properties. Maybe the Homes Association in that area could get some ideas.

Joe Johnson—When we get a normal rain season, we spend a lot of time with folks that have standing
water. We refer them to this program that is available. We have had one person take advantage of it. But we can meet 15 to 20 people a year on drainage issues and we do tell them about placing rain gardens that can be added. Many time they just want it off their property and off site, they want grass. A lot of times they dig a nice sized hole and fill it full of rock and cover it back up and then let the water soak into that gravel bed and leach out into the dirt, that is a lot of it. But when we meet with folks that have issues like this we do tell them we have this program that can help them.

Chair Azeltine-Not sure if we need a motion, but Debra Filla and I will be reporting back to the Council on how we can promote this.

Debra Filla-I think one of the things that is important about this program is we have many people that live on creeks. If anyone has gone out to a web site that is interesting is globalfootprint.net. You can see what all you are doing. I’m still going to fly in a plane and I know the use of the jet fuel is not great and I’m still going to use electricity. But there are questions you answer that can show you/benchmark just how much we have of a carbon footprint in this world. We have this idea of mitigating. How do we mitigate your carbon footprint? You do that one, by installing a rain garden, and trees and to me this is frustrating because I know Joe and his staff know what they are doing in promoting it, but here we have $10,000 and we hope people will understand the benefit. Everybody becomes more and more ecologically orientated in terms of wanting to do the right thing. What do we need to do? It becomes a personal challenge to me. What is wrong if we can’t give away $10,000? We have free money that can be used. Lenexa has done well, but we are not unique. All the other cities are not getting this done either. That is the challenge.

ACTION: Debra Filla-I’d like to have another meeting maybe where we can come up with an action plan to recommend. I don’t want to have it brought up and then have it go away and just leave it with staff. The Sustainability Group is about conservation. The Parks and Recreation Department planted some Rain Gardens and they are beautiful to look at but how do we go about this? We have the talent and skills for people that need help. We have the talent, the money and I think the desire so I would suggest we have one more meeting to discuss this and brainstorm on it and come up with thoughts and getting the information out there.

Carole Lechevin seconds the motion.

Lisa Harrison-Would like to see this communicated better. Maybe an article in the Parks and Rec Guide every season.

All members present are in favor, Motion passed.

Chair Azeltine-Thank you so much Tom for meeting with us today. What is the population of Lenexa, do you know?

Tom Jacobs-roughly 52,000.

THIRD ITEM OF BUSINESS: Review Consultant Selection for Steel Pipe Replacement Project.

Joe Johnson-For 2018 this Program is in the City’s Capital Improvement Program beginning in 2018 and re-occurring every even year. The game plan is that we hire a consultant to do the design this year and go to construction in 2018. One of the projects, we’ve already got (at the next Council Meeting) a contract with Shafer Kline & Warren to do the Preliminary Engineering Study (PES) in Leawood South and it is controlling a lot of flooding but it is 1600 feet of corrugated pipe that we are replacing. So we have roughly a million and a half dollars left of the three million in 2018 for construction. The Committee went to a selection process not too long ago and ranked 6 or 7 firms where Affinis Corporation was number one. Olsson was in the top three. We wanted to see if based on the last selection, could we go ahead and hire Affinis to do this first phase, or to design the rest of the project for the rest of the funding
for 2018. Then after that we would go back out to a Consultant Selection and maybe look at doing that and then after we ranked them again, take the top two or three and use them for the next three or four years; so we do not have to go through a consultant selection every other year with these projects.

Debra Filla-Can you pause and back up? Because we have new folks here on the Committee that do not know exactly what we are talking about regarding these steel pipe replacement projects. The problem of where these are and how much you have with taxes and how we are going to spend this money and in what time period?

Joe Johnson-We have three million dollars every other year until either we get the job done or until we change our priorities. This is a bonded one. We started out doing a seven year-Five Million Dollar Program, but looking to get to the budget over time, was- bad. So last year when we did the budget, the City Administrator split it out so that on odd years we do Three Million in the Residential Reconstruction Program (although here in about 3 or 4 cycles we will be done with that). But then in the even years we will spend Three Million dollars towards replacing the corrugated with steel pipe.

Debra Filla-And the estimated problems to fix was-Do the math again on that.

Joe Johnson-The estimate was Thirty Five Million Dollars. At the next council meeting, we will have an Ordinance to approve that at the same time we are asking to approve our design contract (SKW did the PES) for the first part/part of it. SKW will design part of it and then.

Joe Johnson-Staff is asking since we went through the selection process we would like a recommendation from the Committee to enter into an agreement with Affinis to design the other part of the remaining funding for 2018 for the corrugated metal pipe repairs.

Chair Azeltine-I would like to entertain a motion for that and we can discuss it.

Lisa Harrison-So Moved. John Kahl seconds the motion/to recommend Affinis Corp. be hired to finish out the project.

Joe Johnson-So then for the next Three Million dollars we would go through another consultant selection. My thought would be kinda like what we did last time and we would rank the firms and then we would have the top three firms. We would then use those three firms for the next three cycles so we are not going through an consultant selection every other year. That would be my recommendation the next time we do it for the 2020 Program; when we go through at that consultant selection take the top three. And that’s who we use.

Chair Azeltine-I can tell you from being part of that process (about a year and a half ago) that it was a real quantitative process. We really crunched the numbers and the review was very thorough. I can see why you would not want to do that every single year.

John Kahl-Looking for a clarification. So we go through and we kind of ranked them and come up with the top three every other year. Are we talking about what we do next time we rank them, what we use for the next six years?

Joe Johnson-Could be, Yes. And that could always change but that would be my recommendation instead of going back every other year and doing the selection.

John Kahl-Six years is a long time frame. And personnel can change pretty dramatically within an engineering firm, you know, within a year.

Joe Johnson-Right.

John Kahl-That is the only thing that concerns me, the length of time for that. Three years is probably no big deal, but six years seems like a long time.
Joe Johnson-And if we run into that issue, then we could come back requesting that the Governing Body have us do that selection process again because things have changed and maybe the firm that ranked highest is not performing that well.

John Kahl-Buyouts, or mergers, principals shifting companies.

Joe Johnson-This is not binding, but this gives us the flexibility with the things being the same. And the firm is still good and they are still performing like we would like for them to, then we would do that, if not then we would come back and go through the process again.

Debra Filla-To recap, then the first bid was to…

Joe Johnson-So we will have a contract with Shafer Kline & Warren and actually it is a SMAC Project, but the project is replacing 1600 feet of corrugated pipe, increasing the pipe size because we are flooding several streets. The nice thing about that is the County will reimburse us 75% of that cost. So we may just spend down on a million dollars or a million and a half of the three million, so we have half of the fund still left for construction that we need to hire a consultant for to do the design. Most of it we will probably look at Leawood South since that is where we are going to be. We have Cherry Creek to do, there is a large pipe there that we are going to replace. In 2020 we are going to overlay the streets there and we held off doing this cul-de-sac because we have to rip it up and put in a large concrete pipe. This is at the southwest corner of 127th & Mission.

Debra Filla-So the first project really is a two for one where we are replacing the pipe and we have funding from the County. But the second one is not.

Joe Johnson-Correct, the second one is strictly our project cost.

Debra Filla-So you are selecting the area because you have streets to do and it isn’t torn up twice.

Joe Johnson-Well, since we are going to be in Leawood South replacing 1600 feet of pipe (we have a lot of pipe in Leawood South). We might as well work in Leawood South and get as much of it replaced as we can. That is the first area we are looking at. Then we will jump over to Cherry Creek and we have one cul-de-sac we need to fix there. And we are going to overlay the streets in Cherry Creek, we need to fix that pipe before we do the street. I do not want to overlay the street and then come in and rip it up to replace the pipe and do it again.

Debra Filla-So once you are in an area you are wanting to get these done before you do the roads.

Joe Johnson-Yes we will start in one area and then get it done then move to the next area.

Debra Filla-We are not necessarily going by the ranking of each as it is deteriorated; you are working geographically to fix the problems.

Curt Talcott-What is our criteria for replacing the pipe. Do we televise at all?

Joe Johnson-Yes we have televised it all and we actually have that as a higher priority than our concrete pipes. So when we televise (we televise about 60,000 feet a year of pipe).

Curt Talcott-And we are just looking at replacing, no linings or any lining considerations?

Joe Johnson-We will in certain situations, but the problem is especially in the smaller diameter pipe, how you get in there and how you concrete the bottom of it to line it, most of the pipe is undersized anyway.

Curt Talcott-Tom just left and we (Curts company) are doing a project for Tom (Lenexa), where basically they are lining anything that is good. They are on their third go-around with that and they are having good success with just pulling the fabric through. Even the small diameter pipes, so I was just curious it that was something Leawood would consider. They are doing it on condition. They have televised everything and they have a couple million to spend every year, they have their Stormwater tax and they
These Minutes were approved by the Stormwater Management Committee on April 26, 2017.

Joe Johnson—And we have talked with several of the folks that did the lining. Our concern is how do you take care of the bottom. Where we are out here replacing all the corrugated pipe on Roe what we are finding out is when you go in to flow-fill them, we are using two to three times the volume because it is such a large cavity under the pipe. So we have talked with the lining companies, and asked how do they go in there and fill in the bottom before you line the pipe? On the larger diameter pipes we see is collapsing. We have several locations that are barricaded right now. We have an inlet on Mission Road that is 18 feet deep. This has a hole because of corrugated pipe and one out in a residential area off of Kenneth Road, same thing. We televise the pipe and those in the worse conditions we televise much more often.

Carole Lechevin—Do you do that in house?
Joe Johnson—Yes, our crews televise.

James Azeltinge—To John’s point, if there are changes in personnel and we need to go back. Now I’d like to make sure that the Minutes reflect that caveat. And also when we do that, the last time we did it in the Public Works Committee, would we do that here?
Joe Johnson—Yes. The last time we hired consultants we did it through the Stormwater Committee.
Curt Talcott—Yes we did it. It was one of my very first meetings that we did it.
David Ley—It was probably four years ago because it was when we selected Affinis to do Leawood Heritage.

John Kahl—The selection procedure that we went through a few years ago. Obviously at this point in time Affinis is performing well. So I think my first feeling is to pick up Affinis and have them finish off fort for next year. I’m all for that. But if we are suggesting that we are going to take the other recommendation that we decided four years ago and move forward with that for the next couple of years, at this point I would not be in favor of that because now we are taking recommendations based upon conditions that are really no longer relevant potentially per today’s situation.

Joe Johnson—So next year we would go through the selection process at the end of next year. John Kahl—And if we knew then when we were doing the ratings that this was going to be something stretched out for awhile then we could kind of have that in mind as we are making those recommendations, and those rankings. Quite honestly in that situation you know a really small company might work really good right now but it still doesn’t have a track record. If I was going through and rating that I might say well, I’m going to downgrade them a little bit because I’m not sure they will be here 6 years from now. But we’re not making the evaluation if we all know that if it is going to stretch out over a long period I would be supportive of that. But to move forward with the recommendation we made three or four years ago stretch out another two or three or four more years other than Affinis for this one deal, I would be uncomfortable with that.

Joe Johnson—And I say had it not been that half of the money is already being spent under the contract with Affinis, have SKW, had we not been in March through the selection process is another two months out, we want to try to get some one hired now so we can get it designed so we are ready to go to construction. It is all timing right now. But the next time, yea, we will go through our normal selection process. And if we don’t, if the feeling is we ought to only limit it to two construction cycles, then that is
fine too. If having an open discussion works, so that we are not having to go through this process every other year.

David Ley-It helps the consultants too because they do a lot of work to prepare their proposals and the process.

Curt Talcott-Yes that is expensive to do.

Debra Filla-to Recap.

Joe Johnson-We have SKW on the next council agenda for approval. We want to hire Affinis to do the work. I have funding left over that is not being spent, so I want to hire Affinis to design that other half.
Debra Filla-Which would be in the year we normally are not doing anything because we have SMAC.
Curt Talcot-It’s the same year, it’s 2018 money. It’s because that is a SMAC Project, we are getting reimbursed by the County, so we have more money left over.
Debra Filla-Okay so that all happens in 2018. So that is the clarification. You have to have the first bulk already committed of spending to SKW and then the reimbursements. And Affinis would be with the last portion of it. But I think to John’s point the proposal to do it for beyond that, we can wait in May when we do the evaluations for 2020. And that way for historical perspective, the motion will be relatively timely for what goes forward. It won’t look like we made a decision out of sink with what we are implementing.
Joe Johnson-Correct.

Chair Azeltine-Okay to make that simple, Julie could you re-read the motion?

Julie Stasi-No. (Laughter). Well staff wants to ask that we hire Affinis to finish out the project that we are already in for 2018. [Committee Member Lisa Harrison made a Motion to allow Staff to work with Affinis Corporation to finish out this years project.

John Kahl seconded the motion.

Joe Johnson-Yes.

Chair Azeltine-Any other discussion on that motion?

All in favor, none opposed. Motion passed.

Staff and Committee discussion: Regarding next meetings, we meet on the last Wednesday of the month. April may be difficult or May, however we have a Holiday there. Staff will take a poll for our next meeting date. We can meet in April 26 a possibility.

Joe Johnson-I will tell you on these rain gardens and stuff (when we do not count them) we get many of them done with all these house reconstructions. Because they increase the footprint and so by doing that they have to detain that increase in runoff. They are required to install them. But the same folks are not doing it. They are doing it at their own expense.
Debra Filla-And we can certainly talk about this when we meet again. On how we advertise this program is a huge thing. But if we were encouraging every home owner that lives on a creek, maybe do a special mailing for and encourage them to decrease the flow going right to the creek. And the benfits of the ecological that is good for their erosion on the creek bank and that it is less maintenance and trying to promote that. It’s bigger than a bread basket.

Lisa Harrison-I like the idea of us getting together and talking with specific Homes Assocations that might have problems as well.

Chair Azeltine adjourned the meeting at 8:48AM.
OFFICIAL ENTRY FORM

NOTE: With the exception of Category A projects, costs reflected below are only those which would be considered actual costs and are NOT engineering fees. If your firm was not responsible for the entire engineering design of the project, then the Entrant’s Portion of the Total Project Budget amount will be the same as the Total Project Actual Cost amount. If your firm was not responsible for the entire engineering design of the project, then the Entrant’s Portion of the Total Project Budget amount and the Entrant’s Portion of the Total Project Actual Cost amount should be part of the total project construction cost your firm was responsible for. (i.e. A mechanical engineering firm was responsible for $12M of a total project budget of $40M. $12M is the Entrant’s Portion of the Total Project Budget. $40M is the Total Project Budget.)

Furnish all information requested below for each entry (signatures by the submitting firm(s) and the client(s)/owner(s) are required). Firm, project, and client/owner’s name should be typed or printed as they are to appear on the award. Please limit the project name to 45 characters.

A fee of $1,100 per entry for ACEC members ($3,500 for non-ACEC members). All payments must be submitted online. Online Payment Method: Visa, Master Card, American Express or Discover.

ABOUT THE PROJECT

Project Name: Leawood Heritage Stormwater Improvements

Judge this entry in the following category (check one):

☐ A. Studies, Research, and Consulting
☐ B. Building/Technology Systems
☐ C. Structural Systems
☐ D. Surveying and Mapping Technology
☐ E. Environmental
☐ F. Waste and Storm Water

G. Water Resources
K. Energy
H. Transportation
L. Industrial and Manufacturing Processes
I. Special Projects
J. Small Projects
M. Facilities

Project Location: City ___ Leawood ___ State ___ Kansas ___
U.S. Congressional Representative’s name in district where entering firm is located ___ Congressman Kevin Yoder ___
U.S. Congressional Representative’s name in district where project is located ___ Congressman Kevin Yoder ___
What state/MO (member organization) is sponsoring this submission? ___ Kansas ___
(Budgeted and/or actual costs may not apply to some studies in Category A)
Completion/Use Dates: Scheduled ___ September 15, 2015 ___ Actual ___ January 2016 ___
Category A Costs: Budgeted $ ___ Actual $ ___
Construction Costs: Total Project Budget $ 2.1 Million ___ Actual Portion of Total Project Budget $2.1 Million ___ Entrant’s portion of Total Project Actual $ 1.99 Million ___

☐ Check box if project was awarded through QBS process.

ABOUT THE FIRM(S) SUBMITTING THE PROJECT

Entering Firm(s) ___ Affinis Corp ___
Firm CEO ___ Rick Worrel, PE ___
Firm Representative ___ Peggy Amor, CPSM ___

Must be available by phone on Tuesday, January 17, 2017 (phone calls will only be made if there are clarifications or additional information required for your submittal).

Address (no P.O. Box) ___ 8900 Indian Creek Parkway, Suite 450 ___ City ___ Overland Park ___ State ___ KS ___ Zip 66210 ___
Phone (913) 239-1120 Cell (816) 260-8353 Fax (913) 239-1111
E-mail ___ pamor@affinis.us ___

I hereby authorize submission of this project into the American Council of Engineering Companies’ 2017 Engineering Excellence Awards competition.

Senior Executive/Principal ___ Rick Worrel, PE ___ Title ___ President ___
Signature ___ Date ___
Address (no P.O. Box) ___ 8900 Indian Creek Parkway, Suite 450 ___ City ___ Overland Park ___ State ___ KS ___ Zip 66210 ___
Phone (913) 239-1100 Fax (913) 239-1111
E-mail ___ rworrel@affinis.us ___

ABOUT THE CLIENT/OWNER(S) OF THE PROJECT

Client/Owner(s) ___ City of Leawood Kansas ___

I believe the work of the engineer meets the intended uses and expectations for the project and hereby grant permission to enter this project in the ACEC 2017 Engineering Excellence Awards competition, and authorize publication of its outstanding features, unique aspects, or innovations. I confirm that the project was substantially completed and ready for use between November 1, 2014 and October 31, 2016.

Client/Owner Representative ___ David Ley, PE ___ Title ___ City Engineer ___
Signature ___ Date 11/24/16 ___
Address (no P.O. Box) ___ 4800 Town Center Drive ___ City ___ Leawood ___ State ___ KS ___ Zip 66211 ___
Phone (913) 339-6700, ext. 134 Fax ___
E-mail ___

AMERICAN COUNCIL OF ENGINEERING COMPANIES
Daisy Nappier 1015 15th Street, N.W. 8th Floor Washington, D.C. 20005-2605 202-347-7474 dnappier@acec.org
November 28, 2015

American Council of Engineering Companies  
1015 15th Street NW, 8th Floor  
Washington, DC 20005-2605

Re: Engineering Excellence Awards

Dear Selection Committee Members:

Affinis was selected to design the storm sewer improvements to an existing waterway in one of our residential areas. The project was located in residents' backyards that were heavily landscaped so it was important to us that they limit the impacts to property owners, deliver a final design that was aesthetically pleasing and provide flood control.

Affinis was able to deliver on all fronts in the following ways:

- They met one-on-one with every property owner multiple times to discuss the plan and make adjustments to the design as needed.
- They designed the concrete channel to accommodate construction vehicles to reduce the construction limits on resident's properties.
- The existing utilities were located against the existing concrete channel. Affinis met with utility companies multiple times and provided a narrow corridor for the facilities to be placed to limit disturbance to existing landscaping.
- The final design features painted, stamped stone walls and a split rail fence to make the channel more appealing.

Ultimately, they were able to keep homeowners happy, while providing a new design that improved existing infrastructure and increased safety. Their responsiveness and attention to detail reduced construction issues during construction and provided for a project that property owners are proud to have in their backyard.

Sincerely,

David Ley, PE  
City Engineer  
City of Leawood, Kansas
Executive Summary

The City of Leawood, Kansas was experiencing home flooding in one of their residential areas. That same section also had a concrete channel in need of repair. To deliver an economic and efficient solution for residents, the city leveraged Johnson County Stormwater Management Program (SMP) funding, solving the flooding issue and replacing deteriorating infrastructure.

Affinis was selected to carry out the storm sewer improvements to the existing waterway, which was over 1,700 linear feet. The existing infrastructure was a concrete trapezoidal channel with double cell, 7x5-foot reinforced concrete boxes (RCBs). In the 5-year storm event, the roadways overtopped, and houses were threatened by flooding.

The project site was in a number of residents’ backyards. The city’s primary goal was to keep homeowners happy. Aesthetic improvements, limiting the impact of construction, and one-on-one meetings helped achieve that. In fact, the Affinis team met with each of the 22 property owners individually and walked through the impacts on their properties.

To improve capacity, the existing trapezoidal channel was reconstructed as a rectangular channel with a concrete bottom. The RCBs at Cherokee Lane and Ensley Lane were replaced with double cell, 8x5-foot RCBs. To maintain the existing channel flowline and provide adequate capacity, the roadway profiles for Cherokee Lane and Ensley Lane were raised.
Project Description
The City of Leawood, Kansas was experiencing home flooding in one of their residential areas. That same section also had a concrete channel in need of repair. To deliver an economic and efficient solution for residents, the city leveraged Johnson County Stormwater Management Program (SMP) funding. Using this approach, they were able to solve the flooding issue and replace the deteriorating infrastructure.

Affinis was selected to carry out the storm sewer improvements to the existing waterway, which was over 1,700 linear feet. The existing infrastructure had a concrete trapezoidal channel with double cell, 7x5-foot reinforced concrete boxes (RCBs) at Cherokee Lane and Ensley Lane. In the 5-year storm event, the roadways overtopped, and houses were threatened by flooding. The new design reduces flooding of adjacent homes and roadways.

The project site was in a number of residents’ backyards. The city’s primary goal was to keep homeowners happy. Aesthetic improvements, limiting the impact of construction, and one-on-one meetings helped achieve that.

Public involvement was a key component to success. The Affinis team met with each of the 22 property owners individually and walked through the impacts on their properties. They worked with each homeowner to adjust the design. These one-on-one meetings were done in place of group public meetings to better address each resident’s individual questions. For one resident, they even extended the RCB to give them more room by their driveway. This created safer conditions for their young children.

Because the existing channel had begun to erode and was too close to a neighboring house, the design team decided to relocate its path. To accomplish this, the city purchased a home and paid for the owners’ relocation. This house was torn down to make room for the new channel. This approach also gave two, nearby homeowners another half of a lot each.
To improve capacity, the existing trapezoidal channel was reconstructed as a rectangular channel with a concrete bottom. The RCBs at Cherokee Lane and Ensley Lane were replaced with double cell, 8x5-foot RCBs. To maintain the existing channel flowline and provide adequate capacity, the roadway profiles for Cherokee Lane and Ensley Lane were raised.

Because of its residential location, numerous aesthetic treatments were added. These included a split rail fence and painted, stamped stone walls. In addition, one resident wanted to keep an existing, wooden bridge. To retain it, the bridge was lifted during construction and then put back, intact.

**Total Project Budgeted Cost:** $2.1 Million  
**Total Project Actual Cost:** $1.99 Million

**Entrant’s Portion of the Budgeted Cost:** $2.1 Million  
**Entrant’s Portion of the Actual Cost:** $1.99 Million

**Scheduled Completion Date:** September 15, 2015  
**Actual Completion Date:** January 2016

The project was substantially complete by September 15, 2015; however, the project did not officially close-out until January. During that time, the contractor and city worked together on a punch list of small details, including some residents’ restoration items.

**A. ROLE OF ENTRANT’S FIRM**  
Affinis performed engineering design services for this project.

**B. ROLE OF OTHER CONSULTANTS**  
Gary VanRiessen, PE provided geotechnical support, and VF Anderson Builders, LLC was the contractor.
C. ENTRANT’S CONTRIBUTION TO THE PROJECT

Uniqueness and/or innovative application of new or existing techniques

The job site was located in a group of residents’ backyards. Limiting the impacts of construction was incredibly important to the city and the Affinis team. However, accessing the existing site meant taking crews through driveways and yards. To prevent this, the channel bottom was designed to handle the weight of construction trucks. This reduced the impact of construction and helped achieve one of the city’s primary goals.

Future value to the engineering profession and enhanced public awareness/enthusiasm of the role of engineering

Working with area residents was an important component of this project. Based on the job site location, Affinis knew they’d be in and out of backyards. To alleviate concerns and gather input, they met with each owner individually. They walked through the impacts of the project on each homeowner’s property and worked with them to tweak the design. In one case, the project team even staked the lot, so homeowners could visualize how the completed project would look. By using these face-to-face meetings, Affinis was able to gather valuable insight on the project and increase buy-in.

Social, economic, and sustainable development considerations

In terms of social considerations, Affinis made some aesthetic improvements to ensure the design was well received for years to come. These included:

- The form lining was stamped, so that it looked like stone.
- The walls were painted.
- A split rail fence was added.

In addition to the finished look, they also considered the project cost. They knew the channel needed repair, and there had been flooding in the area. Because the county will provide up to 75 percent of funding for projects designed to solve flooding problems, it was an opportunity to fix both issues with one project.


Complexity

There were a number of complex issues related to constructability.

1. Access was limited to the site, so they designed the channel to handle the weight of construction vehicles.
2. There were a number of utilities in the area. There wasn’t room to relocate them behind the channel, so Affinis partnered with them throughout construction to make design modifications.
3. The area couldn’t have both roads entering it closed at once. Consequently, construction used a phased approach.
4. In addition to these challenges, the team was working in resident’s yards, so ensuring stakeholders were informed and involved was another important component that added a layer of complexity to the project.

Successful fulfillment of client/owner needs

The city’s primary concern was the residents’ reactions to the final design and the construction process. To ensure a positive response, Affinis met with each property owner on-on-one, added aesthetic improvements to the site, and worked to limit the impacts of construction. They also made it a priority to be responsive to homeowners throughout design and construction.

D. SUMMARY

The City of Leawood, Kansas was experiencing home flooding in one of their residential areas. That same section also had a concrete channel in need of repair. To deliver an economic and efficient solution for residents, the city leveraged Johnson County Stormwater Management Program (SMP) funding. Using this approach, they were able to solve the flooding issue and replace the deteriorating infrastructure.

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Key Participants
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Contacts:
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Photo 2: New channel walls replaced existing stone retaining walls that were deteriorating.
Photo 3: The existing, concrete, trapezoidal channel was undersized and had reached the end of its useful life.
Photo 4: New RCBs were sized to eliminate flooding.
Photo 5: New channel walls varied to match existing yards and landscaping.
Photo 6: An existing wooden bridge was saved and relocated for a resident.