

Minutes of the STORMWATER MANAGEMENT COMMITTEE

Meeting held: Wednesday, October 30, 2013, 7:30 A.M.

Leawood City Hall, Main Conference Room
4800 Town Center Drive, Leawood, KS 66211

COMMITTEE MEMBERS PRESENT:

Jim Rawlings, CHAIR and Councilmember Ward 2
Thomas Robinett, VICE CHAIR and Councilmember Ward 3
Julie Cain, Councilmember Ward 4
Debra Filla, Councilmember Ward 1
Skip Johnson
John Kahl
Alec Weinberg

COMMITTEE MEMBERS ABSENT:

Pat Dunn

STAFF PRESENT:

Joe Johnson, P.E., Director of Public Works
David Ley, P.E., City Engineer
Julie Stasi, PW Admin. Services Manager

- **Chair Jim Rawlings called the meeting to order at 7:30 AM.**
Chair Rawlings welcomed Tom Robinett to the Committee and as the new Vice Chair for the group. Tom is the new Councilmember for Ward 3.
- **The first item of business was to approve the Previous Meeting Minutes**
Alec Weinberg Motioned to approve the Minutes from July 31, 2013. John Kahl seconded the Motion; all attending members in favor. Motion passed.
- **The second item of business was a continuation of the consideration of a Green Street Pilot Project.** Joe Johnson reviewed the history of the assignment. Back in 2012 we discussed trying to do a green street project where we basically take the water off the street and run it through a bio retention of Best Management Practices (BMP)/similar to a bio-swale. Let the water clean out and then it gets discharged into the storm system. In trying to look at the best thing to do, we hired David Dowell with El Dorado Architects, a firm here in Kansas City. They have been working with KCMO and a gentleman in Seattle. Seattle has done some similar designs. We had them come in and look at two sample areas that were chosen. One area was on 132nd Street east of Mission Road (in Waterford) and then another location on 132nd Street west of Mission Road (in Wilshire).

We looked at several streets and these areas seemed to be good locations. One was in front of the Homes Associations pool and not in front of anyone's home so it would not impact any individual property owner and it may be in a location that if the Homes Association elected to, be easy enough to maintain as they maintain the common ground around their pools. Those were the locations we talked about at the last meeting and worked with El Dorado to come up with a concept design.

In the packet we submitted, we asked them to look at these areas and see what could be done. Once we had a conceptual design and plans, we then worked with a contractor (Wiedenmann & Godfrey) and have them take a look at the design and put together a cost estimate which also was included in the Committee's packet so we would know what the cost would be to do something like that. From review of what we received, to do the entire concept is fairly

expensive; close to \$150,000 on both locations. We broke some pieces out, but we wanted to try and see what could be done especially when we go talk to the HOA to see if we can get some buy-in on a project like this-In them agreeing to maintain the amenity once they were installed. And we were trying to get a scale of cost together to see if that is something even feasible or even practical to do.

Joe Johnson, (describes on the maps the different areas):

What we looked at doing one of the areas the idea was to bump the curb out to allow stormwater to go in to a holding area and drain into an inlet. Part of the area is undercut and soils and plantings are then placed there to filter the water. Also, there was a little boardwalk bridge placed in an area, with the water running underneath and then it filtering back and draining into an inlet as the water drains through the soil. A couple things we noticed: during the summer, many people park in the subject area for the pool. We also noticed that during school session, parents are parked in this area during the morning and afternoon to drop off and pick up children. The area is pretty much used every day, so now we are unsure how agreeable the HOA would be to lose this area. If this green street is installed here, the parking area would be lost at this location.

Another thing we found out is that along the back of the curb, is the sanitary sewer main. Johnson County Wastewater has been working with City's and contractors because of the National Pollutant Discharge Elimination System (NPDES) requirement everybody is putting these types of systems in for commercial developments and residential developments for the clean water act. The county has been working with everybody to not put these structures in or on top of their sanitary sewer lines. Their concern is infiltration into the sanitary sewer. The other concern and we have this no matter where we are at, is that when you do these structures in the right-of-way, you have water, sanitary sewer, cable, etc. If someone has to come in and do some work and dig to their utility, generally it is an expense someone has to incur in putting these things back together. We have tried to avoid putting a lot of neat stuff in our right of way because there is always the potential for it to be dug up. If you have noticed the last three or four months while we have constructed the Leawood Justice Center; we've been running a fiber ring around and down Town Center and Tomahawk Creek Parkway and up 119th and down Roe and now there is a new business coming into the corner lot, they are doing the same thing and running fiber all over the place and one day we had the road closed because they hit a gas line here at the corner. And then we hit a gas line on 119th Street. That is the big issue in putting these amenities within the right-of-way, especially behind the curb.

Deb Filla-So that is why you decided to bump out the curb instead of push into an area which has existing items in it.

Joe Johnson-Right. In a lot of cities it is a bump out. In Kansas City Missouri, they have done this both ways. We spoke with them about it, everyone is crossing their fingers and hoping that it doesn't have to be dug up. When it does happen, it will have to be replaced.

Joe Johnson-When we looked at just doing pieces or portions of the conceptual plan, one scenario is \$88,000. Another was \$25,000 for a foot path bridge. They looked at a little boardwalk that went over the basin with a sitting bench so you could actually be more involved in the feature taking notice of the different plants and feature. It looks really nice, however we

did not think it was going to be quite as expensive. We could do just one portion of the plan, or all of it. The least expensive portion was about \$26,000; which was what we were figuring on (total). It came out to \$55 a square foot and back in 2012, that is what we were talking about was somewhere between \$45 and \$55 per square foot is what we thought the cost would be on a square foot basis.

Joe Johnson-Also talked about the second area we looked at, 132nd & Delmar. This area is similar

to the other location. We also looked at bumping the street out at this location. 132nd Street is fairly wide. We thought when we did the curb program, we could bump it out and place a little island in; which would decrease the distance when crossing the street. Our thought also is you could do part of this and not do any of the rain gardens. Maybe bump the curb out and place an island. There also is a median in the area.

Deb Filla-Asked to have the AIMS map of the intersection shown. This was one of the areas we thought might make the intersection more-friendly and not as intimidating for the school children who walk this way or bike to school (going to Mission Trail Elementary).

Joe Johnson-Whether we put in a rain garden or not, we could always bump out the curb when we do the curb rehab and make less of an area for them to cross.

Jim Rawlings-Asked if this was the same Homes Association as the other.

Joe Johnson-Advised there were two associations, Wilshire on the west side of Mission and Waterford is on the east side of Mission at 132nd. Joe said when we looked at this originally we were hoping about \$10 to \$15,000 in cost. The one that is the least expensive option is \$26,970 for a small portion. We looked back at the drainage area and it was about ½ an acre or a little less than ½ an acre. The drainage basically splits the street and back up by the pool runs a different way. There is only about ½ an acre that would be collected in a new basin. In looking at all the amenities in the conceptual plan and if you did them all, we would have about \$240,000 (for both). Each of these two locations we were close to about \$150,000 estimated costs.

Debra Filla-In review of the Waterford one by the pool. You could just do the intersection and the boardwalk and not any of the curb portion. And that buys us what? In trying to compare what all is presented in the concept. Is the more important part of collecting water the bump out, or is it the corner or is it the combination?

Joe Johnson-They were taking advantage as much property they could to capture as much water as possible.

Alec Weinberg-From an elevation standpoint, this sits at the top of a hill. So you are only going to collect water from one drive way to another.

Debra Filla-So you are not getting much bang for your buck if you put all of that presented.

Alec Weinberg-No, it's not much.

Debra Filla-Right. And you're also interrupting everybody's parking, which would make everyone mad that couldn't use the area anymore. That is not a great way to start off a pilot area.

Julie Cain-That location is a bottle neck because trying to get across 132rd and Mission when school is going on, it's difficult. That is a very busy corner, there is no traffic signal and it is ½ a

block from the school.

Joe Johnson-It's much easier in the summer with just the pool activity.

Debra Filla-It sounds like we are all in agreement and we do not have to talk about this one (Waterford) anymore. Everyone was in agreement not to look at Site 1 anymore.

In review of Site 2 in Wilshire:

Joe Johnson-describes the NW corner of 132nd & Delmar. Landscaping costs are about \$88,000. Then you have an added boardwalk expense; and that is optional. Then we have 132nd mid-block location and that is almost \$27,000. Then the southwest corner is a little bump out area and it has a soil preparation area, turf grass (it is in front of a residential house) and there is an island.

Debra Filla-Verses Turf Grass. Why wouldn't you put tall grasses in these areas with good root systems, as opposed to turf grasses? If we were suggesting the optimal conditions, wouldn't we want to suggest a low water/high drought resistant plant?

Joe Johnson-Because this is maintained by a property owner. It is not an HOA maintained area. We would have to make sure the property owner is in agreement to maintain it. We would have to knock down the curb area to get it in there in the first place in order to allow the water to go through here. But if we were to maintain our standard curb where you don't allow water to get in, then we sod back consistent with what is in the right of way and the rest of the property.

Debra Filla-To understand. There are two parts on this site. Improving the intersection walkability and pedestrian friendliness. And that is a good thing because it is by a school. (By the way- Mission Trails just got an award for best school. They were one of the Blue Valley North participants that was in the exchange program with ILAN STUDENTS. Debbie Bond has been one of the most enthusiastic principals involved in our sustainability project and got awards). So in terms of all the work we are trying to do to get kids walking and biking to school. We are trying to encourage that. When you can take an intersection that is kind of daunting and think all of a sudden we have third graders and multiple kids. How do we make an intersection more-friendly? To me that is a separate thing. If we are going to be working on the street. If you bump out the curb and working on those medians, we could do that and forget the green street thing.

Julie Cain-My kids went to that school, and so did Alec's kids and we've walked that intersection. I wouldn't say that is a "daunting" intersection. It's very pedestrian friendly. There are a bazillion kids riding bikes and walking through there. I've never known of anybody having an incident. I would not call that "daunting". I do like the idea personally if we are going to do something, of doing it on the corner as opposed to in some of the other locations depicted here.

Dave Ley-Speaking to the bump out curb costs. With our road project, we have to replace the curb and install ADA Ramps anyway, so those costs we are already going to do with our street program.

Debra Filla-In our first discussions, we talked about a larger pilot and then also doing a smaller

one in a residential area (my neighbors for instance had agreed to doing one) on Belinder. Maybe to have one in Old Leawood and then have two kinds of pilot areas.

Joe Johnson-Yes, we talked about doing both locations. But at the last meeting we were trying to come up with a concept plan to be able to go to a Homes Association with and say here is what we've come up with, would this be something that the HOA would be interested in? If the City installed it, would you agreeable to maintain this?

Julie Cain-So you have not spoken to Wilshire yet?

Joe Johnson-No. We just did this cost estimate and conceptual plan in the last month. We wanted to show you the cost from the City's perspective. And we wanted to come back to this Committee to see that we were for one, in agreement on what it is we were going to ask the Homes Association. That if we did go to a Homes Association, there would be funding for it. Because this is a non-budgeted item. It would not come out of the curb program. So we would need to determine where the funds are going to come from. Originally the discussion was around \$10 to \$15,000 and we were thinking that was probably a doable solution. To have something done and to easily fund it.

Deb Filla-In some ways I think this isn't a very good costing model. We are not taking into account what you are really doing. The whole point of doing this; the reason I raised this for consideration is that we are doing 5 million dollars of curbs every year. So the question is how do you take advantage of that. Because if we do not take advantage of it and you don't do it now, you aren't going to do it. But then to include the costs back in, skews the whole concept of doing it to me, because you are doing it anyway. The idea that you could make that whole intersection under the public works (in terms of street improvements and curbs) and you wouldn't have to talk to any of us. That's just the way you would design the intersection. And then include the costs and say it's part of a green street, doesn't seem to me to be a good. I see you are puzzled Jim and not understanding what I'm getting at.

Jim Rawlings-You lost me.

Debra Filla-Okay. If you take out the green element of this intersection and you talk about bumping out the curbs and putting in just the median and changing that intersection so that it is more narrow, that has nothing to do with making it a green/water pilot area. Am I correct?

Joe Johnson-Right.

Jim Rawlings-Yea but we weren't going to do that until we started about this project.

Debra Filla-But Joe could in his public works budget decide that is how he is going to design and redo that intersection, because he is doing those curbs anyway. Whether he bumps them out or leaves them in, the only additional cost would be the median.

Joe Johnson-Right. If you look at the mid-block cost. We are at \$27,000. Of that there's \$3,700 of that that is curb work. So now, \$23,000 of that cost is the green implementation.

Debra Filla-Right. And the same thing throughout all these locations. There are standard curb and gutter costs...almost \$20,000 worth in just redoing the streets.

Joe Johnson-What Debra is saying is right. The curb cost is a small piece of the green infrastructure. You could look at each one of these and these probably about \$4,000 worth of curb work that is going to be the City's expense when we do the curb program.

David Ley-We have had complaints on this intersection from a lot of the parents about this

intersection with the parking and with kids trying to get across over the last several years. Joe Johnson-if you just did this by itself, if we just came in as part of the curb program and bumped the curb out, we may spend an extra \$2,000 over what we might have spent to begin with. We would just do it with our curb work in house. That is incremental expense with a curb project.

Debra Filla-I think the point that is also to say and that is traffic calming. Maybe I didn't mention the right terms when I was talking about making the intersection more pleasing. That is a traffic calming measure.

John Kahl-I'm shocked at some of these costs.

Joe Johnson-so were we.

John Kahl-These are just estimates, but some of the numbers look out of whack. Standard curb and gutter. On one scenario it lists \$62 a linear foot. In another standard curb and gutter is \$76 and on another \$68. We have small quantities on these so I don't think that is what is driving it.

Joe Johnson-The small quantities may be, because you pay a premium for it. Not machine poured it's all going to be hand poured.

John Kahl-The plantings are also high. When we do restoration projects we have lesser costs for plants; although they are restoration projects and not architectural enhancement projects. We do not start out with grown plants. Ours are smaller plants and unit pricing is more like \$1.00 to \$1.50 a-piece. We also would space them further apart. On example 1 alone there is \$40 some thousand dollars along in the plantings and I'm thinking that could be more \$3 to 4 thousand dollars. Understandable if someone else is placing it, there is a guarantee cost they would charge if they have to come back. But if we shave off excessive costs of plantings, we could bring the costs down they may not be reflective of what the costs should be and on those few items the costs look high to me.

Skip Johnson-Also we are not talking a true bid climate either. We are talking about a conceptual estimate here. This is a more preliminary estimate. They are going to be conservative.

John Kahl-But we're trying to make decisions based upon these numbers. These are high. We could shave a lot of money off of the estimates. If a cost was \$58,000 instead of \$88,000 and we shave out \$30,000 of that because it's excessive on the plantings, maybe it could be done for much less. However that is still a chunk of money. Not sure this gets us to where we wanted to go when we were first talking about the green street item. For a pilot to demonstrate something, maybe that is not too much, but if they are supposed to be a model moving forward I am not sure that is something the City can or would want to afford to do on a very wide spread basis.

Jim Rawlings- Back to Deb's observation. How much would concept #10 be if done by itself? Maybe the idea of a small pilot project first would work. Maybe a model. This might be the wrong place for spending that kind of money to begin with. Maybe somewhere in a corner up in northern Leawood. Just throwing something out for discussion. We need to dip our toe in the water on this thing especially going to Council and explain why we want to spend x number of dollars for something.

John Kahl-We're trying to make decisions based on numbers that were put together for a

conceptual idea and the reality of that is they may just be a little bit scarier than they should be. It's still a lot of money.

Alec Weinberg-Regarding concept #10. How much water are you actually going to be treating in this system that is coming off of the curb for anywhere from \$15,000 to \$25,000?

Joe Johnson-4/10th to half an acre.

Alec Weinberg-And when you say ½ an acre are you including some of the green space to the north?

Joe Johnson-Yes.

Alec Weinberg-Okay. Just so you know, the area that is north of that sidewalk, there is a bunch of French drains in there because we have had a problem with water punching below the pool for years and years and years and those French drains run to the north and the west. So there is not going to be a lot of sheet run off there just because of the way that is designed to get the water out of that area. I live about a quarter of a block from this area. I am really opposed to this. Julie Cain also lives close to this area.

John Kahl-In the concept of this. I'm not saying that all the water that runs off our turn is really clean but that really is not the water we are trying to clean up right? We're trying to clean off the water coming off the streets?

Joe Johnson-Right.

Alec Weinberg-So if you are looking at just gutter, you maybe will pick up from the corner down. Half a street maybe an 1/8th of a block? Not a lot of bang for your buck.

Joe Johnson-When you go back and shave off the costs, the cost for the area is still \$45 to \$55 per square foot. That is what we were told in the very beginning. So it's within the ballpark of what Kevin and David have seen go in; that they showed us. We maybe can get it a little less but the square foot is still high. We are at the high end of the cost per square foot.

Julie Cain-She over the years in walking through the intersection never saw any pooling of water at the subject intersection. The problem with the intersection has been more the parking in the cul-de-sac south of there with the moms lining up in the cul-de-sacs. The children would then be walking in between the cars and it would get dicey with cars moving and kids running in and out. The past principal put a stop to that and that is a no-no now. When we were first talking about this concept

David Ley-Actually they are parking in there again. We just received another complaint. (speaking about the area south of 132nd & Delmar).

Julie Cain-Doesn't doubt that, but that is the problem there (the parking in the cul-de-sac, not the intersection) that also is not a water problem area. When we were first talking about this, I liked the idea at that location because of the kids walking by and them learning something and that kind of thing, but its expensive.

Jim Rawlings-In looking at the plantings, is that an outsourced cost? Whether the City would do it or somebody else? Could Parks & Rec plant the bushes and maybe save some money that way? Are we even looking at the right place?

John Kahl-Comments that none of these facilities are ever designed to treat fifty (50) acres. These are all for quarter acre to an acre and a half tops. Just by their nature. We do not have streets that have 20, 30, 40 acres collecting at the bottom end without a bunch of inlets along

the way picking it up. With an inlet you are actually kinda lucky collecting a couple acres without flooding it. More lucky to collect one acre without flooding it. So you have to put them in and collect it along the way. If you wait until you are at the bottom you have a lake and the people at the bottom are flooding and you can't get the water in the pipes fast enough.

John Kahl-I suspect we are not going to find anywhere along a street where we are going to create or treat huge quantities of stormwater.

Joe Johnson-Yes if you want to do that you collect it and then you dump it into a basin and let it clean.

Jim Rawlings-Any recommendations then or thought?

Debra Filla-Asking a question. Mid block, there's \$245 for irrigation, what is that for?

Alec Weinberg-To replace the irrigation they tear up when they put in the project.

Debra Filla-When you have soil prep for planting; \$2500 to prep that little area?

Joe Johnson-Yes. It is a sand/soil mix. It has to be dug out then you have to bring in a soil mix. Because our soils do not allow water to pass. It's clay. It is expensive. If it's put in too early, and it rains and doesn't drain, then it has to be replaced. It is an expensive process.

John Kahl-One comment is what he's seen going on in the Metro area for the last 15 plus years since we started doing BMP's and whatever (guess it's in his nature as an Engineer to bad mouth Architects)..[laughter] an Example is they come in with a concept and Lenexa has had huge troubles with that soil mixture and expense and whatever else goes along with it. One of the things that we've certainly pushed is to go with alternates because it is too expensive. You can work with soils depending on the types of plants you put in the beds. If you can get the plants to penetrate low enough you create a conduit so they can work without the special soil mixtures. If you tried to apply that \$45 to \$55 per square foot City Wide, you could be in the billions of dollars if that was a concept you wanted to provide City Wide long term. It's substantial. Or if you back out and put in smaller plugs that take a year or two to develop you could cut your costs.

David Ley-We've never had much luck with the plugs on commercial properties. Leawood actually requires one gallon when they come through for approval. With the soil treatment too.

Alec Weinberg-Joe/David, what is the on-going maintenance on say just the small project. What would be required of the homes association?

Joe Johnson-Probably the biggest thing we have heard would it would be irrigated so that helps during the summer if they don't die. When we get to July and August in the summer if they don't die, a lot of those plants die. Probably weeding is the biggest.

Alec Weinberg-So there is a mulch layer and the different soils so the plants could poke through. And the mulch replacement would be on the HOA. Just being a member of the Wilshire Homes Association I can tell you they do not have much surplus money. Additional costs to the HOAS will be very difficult to sell. There are only 150 homes in the HOA, with a pool and a tennis court, it is a struggle at \$650 a year association fee.

Jim Rawlings-quite a difference. We have about 1500 in our HOA, and the dues are \$200 to \$250 up north.

Debra Filla-We do not have pools or tennis courts. I appreciate John's comments because the idea is to learn from what is going on for 15 years and the whole soil prep thing is blowing me

away because we didn't do any soil-prep for the rain garden in Brook Beatty Park. I didn't think that was the purpose of that. You found plants that go down 4 to 6 inches. The one at Brook Beatty Park and now Tomahawk Park and watching Parks add another one. The idea is just to pilot. Pilots shouldn't be self-sufficient. To me this estimate staff has presented us with is to ensure we don't do it. This whole presentation is "lets not do it". And I can't justify that.

Debra Filla-That is not what I had in mind. I had in mind something which was the mid block location. There's things here we are talking about, traffic calming and aesthetics. If you go back to the original presentation by Mr. Perry from Oregon, when they did the first green street, it became the most requested improvement by any neighborhood because of the aesthetics that it brought to it. We already have the lovely aesthetics in our neighborhoods. We have green trees and all sorts of good things.

The objective was to clean the street water, so thank you for reminding us it's not trying to clean the stuff coming down the hill although it could do that in fact. We don't have the problems that Kansas City Missouri has with sewer and water; stormwater getting all convoluted. It was to see can we go above and beyond, because we are a City of distinction. And what are we going to learn from this?

So to me, I love the idea that they proposed in terms of traffic calming and making that intersection in example #2 with the curb. I love the whole look of that. What I'm disappointed in, is that the assumption is we put turf back as in example #7. We are missing the part that I thought was going to be part of a pilot; which is working with the HOA and working with the Residents in that they would own it. Because that's the part they hadn't figured out in Oregon, was how do you do the on-going maintenance? And this is not doable if you're not putting in a low maintenance and you have their buy-in. Like the home owner there in our example. If we did the curb and we went to them and said "heres what we would like to do, we would like to improve the water quality and we'd like you to be partner of it and here is what happens when you put in big-rooted native plants". Would you be agreeable to that? We'll provide the plants if you do the maintenance. And then they say "yes" or "no". And if not, then we'll put in turn and you go on your way. But to start out saying we are going to do turf and not have that conversation, is missing the point of the pilot.

I already talked to my neighbor. If you were doing this on Belinder, where you have the whole area down-hill, and they already have irrigation, that won't be an issue. It's literally a stretch of road that we have to cut into that is right before the inlet. I would want to have (and we talked about doing two pilots). Instead of doing all along the 132nd Street intersection, I like doing the mid-block with the smaller plantings, etc. and doing one in Old Leawood. The point was I thought was to say: Is this something we could incorporate in our five year curb and gutter plan as we go about doing our business? Because it improves the aesthetics, it improves the water and we have both partnerships so it is not a long term maintenance issue. If we can't establish the maintenance cooperation in the pilot then I don't think we should do it. Because that just means we are incurring and creating a bunch of new maintenance for our City and I do not want to incur that kind of long-term cost. And I also wanted it to be educational so people understood. When you do surveys (the Blue River Water Folks do surveys) and they ask people who lives in a watershed, and only 18% of the people say they live in a watershed? That's a huge educational problem. "I don't live in a watershed?" That means that 88% of our

population lives on a ridge of a mountain. Because they don't live where the water flows down. So to me, that's the things I was hoping to have in a Pilot. And we already have approval from Council to spend \$10 to \$20,000 dollars on this. And I think we can make that budget if we do a mid-block here and one in north Leawood and do smaller plants and we get cooperation of maintenance. And we don't do all that soil prep stuff, we find the plants that are going to work in there. It's not sustainable in our budget to put through that kind of soil-prep throughout the City.

Alec Weinberg-I don't think it works without the soil prep. Because that is what the expert third party (from Oregon) has said that is what you need to do to make this work, so the water will flow through.

David Ley-Even in the local standards, if you get any BMP's you can't just put. You don't get as much credit for plants with the native soil. You have to take out the native soil on any of these BMP's.

Alec Weinberg-And when you take out the native soil, then that requires future maintenance for that basin.

Debra Filla-Then we shouldn't do it. If we can't figure out how to use native plants that are native to Kansas that were growing here before we all got here and they worked just fine, then it is just a pipe dream. It's not doable. But, John, are there no plants that could be put in here to do the job?

John Kahl-Yes, the issue comes down to aesthetics. Certain people have a certain expectation that it's going to look a certain way. And not many of the plants that would be applicable meet that expectation. Not to say that they don't or they can't, but then you run into other issues (example of #7) where we are asking is that going to be grass or plants? Well most of the plants that would do well there and would be successful and could penetrate the soil are also tall. Do you really want to place a visual obstruction that is tall that close to an intersection? When we do restoration, we try to avoid a monoculture, because that is not what nature typically does. You go out in the woods and the weeds and you don't have nothing but one thing growing for extensive areas as far as they eye can see, You have a little of this, a little of that, a little of everything else. But you can do monocultures and they work, but they are not really natural and certain plants do quite well, in the sense they can limit weed growth and other things coming in if you can establish them thick enough, but then most of the plants that do that are knee to chest high. So we wouldn't want to do that in some of these areas.

Alec Weinberg-For a plant to have a long root, it has to have a long structure above the ground. So they are equal and from an aesthetic standpoint as John mentioned, you are going to drive through the subdivision with all these mowed areas and then you will have one or two areas waist high natural growth, which is not very safe or pleasing.

Debra Filla-When I was learning about sustainable water and clean water is that with planting turf grass, that by nature requires three inches more of water than we get in our season. So that is not a sustainable practice. Just like watering western Kansas, at a rate before it can refill the Ogallala Aquifer, is a non-sustainable if you want to pass along your farms in western Kansas. The whole idea is, are we putting in plants that grow natively here that do the job? Turf grass is three inches. I'm sure we can find a plant that is 6 to 12 inches that is a better option than a 3 inch root system that after 3 inches of rain becomes just like our streets. Right?

The pilot is to try it. And if it doesn't work, fine, we aren't out a whole lot. But to me the premises of which we've started is that commercial grade, there's no participation by the home owners or the HOA that we're bringing in soil preparation that is not what our land is, that is not a good premise for a pilot for me, from my perspective, we might as well just skip it. Because we're setting ourselves up for it to fail. The cost economics can't be replicated. So why bother doing a pilot?

Jim Rawlings-In trying to bring some closure to this, I hear Deb saying maybe a couple of smaller pilot projects conceptually go back to the drawing board and I personally would be for that. I think to tackle something this big for a pilot project –this is unknown territory for us and I would rather see something successful in a smaller area. Give it a go and give it a try, learn from it and not get into something as big as these others for the first time. That is my suggestion to the group.

Alec Weinberg-I would make a motion and I also want to ask a question. Isn't there an applicable area in one of the City Parks that you could do a pilot project?

Jim Rawlings/Debra Filla-We have already done that. Brook Beatty Park.

Alec Weinberg-I mean that uses this technology.

Joe Johnson-No.

Alec Weinberg-so you could take a home owner and show them specifically what they would be getting instead of the great unknown.

Makes the motion that we table this until we have further information to make a more informed decision as to whether a pilot program will work in an area and also entertain pilot programs in other areas of the City.

Debra Filla-Seconds the Motion.

Julie Cain-There is an intersection in Ironwoods Park on the way to the Lodge; every time I walk there, there is water standing there. It's at the bottom of the "T" and the Lodge is nearby and the parking lot and there is always water there. It would be a great place to try something perhaps. There is an asphalt trail and there is no curb there. It's pretty natural all around there.

Jim Rawlings-There is another place in northern Leawood but he is not sure who owns it. It is on Meadow Lane between 95th and 98th. There is a median. Not sure how developed it is.

Debra Filla-The Birks of 8501 Belinder have already said they are fine with doing a pilot in their yard. They lost a tree and it sits right in front of the deal. It is very steep there on Belinder coming down. I will help weed it. I am going to partner with them.

Alec Weinberg-So that will run with the Deed on your property, your service?

Debra Filla-Yes.

John Kahl-Comments. If we are going to look for other locations, we may not want to look at the place where there is necessarily always water. As a pilot project. And the reason why I say that is because that is going to behave differently than this will. Because there is not always water right here. And so if you say this picture is what it will look like and you show them a picture of something in Oregon. Different plants are going to look differently in a place that is always wet. And they will not always be successful in areas that are generally dry

except for when it rains. So we need to be careful if we are looking at all these locations. Whether on City property or somewhere else. It needs to be representative of what the types of conditions that are going to be present for the long term if we were to do this on a wider scale down the road.

Jim Rawlings-Before we vote on the motion, is there a way, how do we determine and Deb already has a place with a neighbor is willing. But how would we determine as a Committee or Staff what locations might be applicable for us to decide? To go forward without getting into...well we have a base here I think. But they can't pick out the places. The City will have to. How do we do that?

Alec Weinberg-Just as a side thought. Possibly talk to Stu Sharp. He might be amenable to do something in front of his house (along Mission Road). It's a farm already.

Debra Filla-I would think this one off of 132nd by the school would be a great location. The Mission Trail School is nearby and it seems like it could turn into a science project for them and the kids could really get into it. Depending on what is decided with traffic calming and all, maybe you approach Wilshire and ask them. Wasn't Leewood South trying to get away from turf because they wanted to lower their maintenance costs? Isn't there over time a lower maintenance once you plant these plants, than mowing all the time? Why wouldn't that be a positive once you get to the point where you do not have to buy the planting anymore and in long term you have the advantage of not having to mow and trim it?

John Kahl-I suspect though that what is currently designed, may not ever fall into that category of. Okay, it's established and we can see it once a year and never deal with it again; a low maintenance concept. The challenge we run into over the years is that we do not do a lot of landscape architecture with a little bit here and little bit there with a careful layout. We do a lot of restoration. Restoration where we are going into channel corridors with 200 feet wide and plant new trees and put new grass in with the right kinds of vegetation and we're doing a lot in these channels that are intertwined amongst various subdivisions. And like HOA property, the challenge we always face is the interface between what is natural and the landscaped property like the back edge of people's lots or maybe where it bumps into a street. You can make them look pretty but then they are very maintenance intensive. They are like flower beds. And those are not low cost. You have to go in and weed them, pay attention to them.

John Kahl-In an area such as #10, we'd probably fill it up with some sort of Prairie Grass that would be about waist high and it would be dominate and largely preclude a lot of weeds coming in. But after that, you would probably come in once in the spring and mow it down. That probably wouldn't meet the aesthetic that everyone on 132nd Street is expecting.

Tom Robinett-Understand I'm getting in the middle of this assignment. I'm almost more concerned that we find a couple of little small pilots and they work. Because it seems to me that-I don't know what the end result is going to be but it seems we are going to have a massive investment with these others and not much return. So I think tabling it is a good idea.

Joe Johnson-Has two questions he wants to ask. Alec, are you on the Homes Association?
Alec Weinberg-Not anymore. I was.

Joe Johnson-The hard part is trying to find somebody whether it is a property owner or an association that will take a leap of faith and do this. We did 135th Street in native vegetation. And until we replaced it and put traditional landscaping in there, it was a sore every year. The day 135th Street opened, is the day the Council debated every year that it looked terrible. We had more complaints and over a five year period, and it died, we put back traditional landscaping. We received a State grant for half a million dollars to put native planting in and the day we opened up 135th is the day the complaints started coming and they didn't stop until all that landscaping had been replaced. That was all native vegetation and it was a monthly discussion at the Council for five years until it was replaced. About complaints on how horrible it was. And it looked just like it was meant to look; but no one liked it. So it is hard to put something like that in without someone seeing it and complaining. So I don't know. You have already indicated Alec on whether Wilshire would be willing-whether it looked great to do it. My thought is, we have Debra Filla and her neighbors who are willing to do that and maybe that is the place to start. We have two people that maybe we can go in with the types of plans that John is talking about and maybe that is the place to start, that gets established. And it would be easy for someone to go by and look at and see what we are talking about. Do we lose some benefits here? Possibly, but you know what, it is easy enough to knock out two places in the curb and let the water drain through. It's not like we're going to rip out 80 feet of curb or something. The soil prep is the same whether I do the curb or don't do the curb. If we end up coming back to this location and doing it two years from now, we have \$1,000 extra dollars a year where we have to knock the curbs out. The hard part is getting it in the ground so people can take a look at it. If we have two people that are willing to champion it and take that leap of faith and put it in the ground; then it becomes easier for people to say, go take a look at it and this is what it is and make it easier to move forward with.

Debra Filla-Before we table it, let me just ask the question. Do you want to be ready to go in Spring? Are we going to delay you if we wait another month? Or are we going to learn anything. Because doing the pilot on Belinder and using non soil prepped plants, to me that comes within the budget that the Council has already approved for a pilot. So we could go ahead and go forward. You are coming up on spring time and want to get going with that right?

Joe Johnson-We are designing the curb program right now (in the residential areas).

Tom Robinett-Is the cleaning function dependent on the soil treatment?

David Ley-the level is.

Joe Johnson-Yes.

Debra Filla-There's two factors there. It's the soil and the root system of the plants.

John Kahl-The special soil mix is basically a big sand filter. That drains. Whether there are plants there or not, the soil still acts as a filter and provides some cleaning effects. The plants serve a purpose, but the plants may be don't do as much as what the soil is doing. You have to have retention time for the plants to be effective. Basically what's happening with the plants is there are little microbes that live on the surfaces of the plants. And when the water hits them, if they have nutrients in them and other types of things that you would like to remove that they have the capability to pull out, the microbes on the surface of the plant grab ahold of the nutrient/element and grab it and change it into something else. It's kind of an organic/biological process. It requires retention time. If you just flush it through and in three

minutes it's gone, the plants do not do much for you other than just slowing the water down and you get a sedimentation effect. But if you want the plants to clean up the water like a wetland does, the water has to stay there awhile. It can't be just a few minutes or just a few hours. It needs to be held a day or two before it starts doing much and then these little types of facilities, it's hard to hold the water there that long. There's too much more water needing to get through, and so the water just kind of flushes through. So in that sense, the special soil mix is a very critical function for the overall performance of the BMP, but I do go back that we are fortunate in Leawood. We are not dealing with the same problems as Seattle, Portland or what Kansas City has. Our motivation-our benefit for doing this is not as tangible as it is in some of these other communities. Because they have a direct pay out. By doing this, they save money somewhere else. In our case, by doing this, we may be saving some money down the road for something we may have to do, but if that's the case, we don't know it yet.

Jim Rawlings-Taking Alec's Motion to approve a pilot project, either one or two where we can decide along certain parameters in the build of this particular pilot project. We need to decide on the soil. We want it to work, and we want it to work the first time. So whatever that takes to get that done on the pilot project so we can learn from it. And move forward with a location or two based on input from this committee; with location or whatever and give it a try. I think we need parameters on how the first one would be built.

Julie Cain-You know I'm all about the green initiatives, but I'm just not getting this whole concept. Long term benefits, what are the benefits? And where do we put it and I just don't get it.

Debra Filla-That's why you do a pilot.

Julie Cain-I know, but why? There is nothing measurable here as far as I can see long term. I think we are talking about the bike ability and the pedestrian friendly and I think there are lots of things we are working on to make us more green and make us more environmentally friendly that personally we should concentrate on. I'm just not seeing the actual benefit in, even among this committee.

Alec Weinberg-It is hard to justify the time on staff's behalf to work on this. What we are talking about as far as tabling is fine. We just wait and push it out and we'll talk about it some other time. But it's still 30 or 40 hours of staff's time to figure out whether this really makes sense. There is a concept here. Are we creating a benefit? That is really impossible to measure. I am like Julie, I don't get it. I'm sorry. The dollars that are required are great in a pipe dream world, but we don't live in a pipe dream world, we really don't. And as a taxpayer, this is stupid. (Just being candid). As a taxpayer, if I went and told my neighbors about they would ask if I was crazy. Do we have that kind of money to throw around?

Julie Cain-In a perfect world maybe. But I am just not getting it. And they said from the beginning \$45-\$55 a square foot. So how many of these can we get and where do we put them and what are we measuring in the end? I think we have more pressing needs than trying to do this. That is my opinion.

Alec Weinberg-And investing staffs time, working on something like this.

Jim Rawlings-There was a motion on the table, now we are doing full circle here.

Julie Stasi-We had a motion from Alec to table the discussion, and Debra Filla had seconded it.
Debra Filla-Withdrawals her "second" to Alec's Motion.

Debra Filla-The whole point of doing a pilot is to pilot. To see what we learn. And so we have approval from Council to do a pilot. And how we got from \$20,000 to \$125,000-\$150,000; we have to say no to that. However, she wants to make a Motion that we do two small pilots. Like the mid-block example and the second one being in Old Leawood; potentially on Belinder, if all works out (where we are as we need to do a soil-prep) and do it with reasonable costs for plants that can mature over a three year time period. In cooperation with the HOA and home owner. And if we can't have that cooperation buy-in, then we don't do the pilot there. Because that has to be part of it.

Julie Cain-We've already established the \$20-\$25,000 that the Council approved-we would be blowing that out of the water.

Debra Filla-Not if we do it in the small way we are talking about it.

Julie Cain-Well we can't do two things anywhere for \$20-\$25,000 can we? We can't even do one for \$25,000.

John Kahl-Not with the soil prep and not with the one and two gallon plants.

Joe Johnson-One location you could do. I think if you do it on Belinder. The hard part is going to get folks to accept to doing a project. So if we have two that are willing to do it; we could work with John Kahl and/or somebody that does what John does instead of a landscape architect that is coming in trying to make it pretty. We need more functional than a rose garden.

Debra Filla-Then I motion to do one (1) pilot project at Belinder, and we will make it within the \$25,000 doing soil prep and with plants that fit within that budget.

Julie Cain-Can it be done for that small amount of money?

Joe Johnson-Yes, we'll make it work.

- Jim Rawlings-The Motion on the table is amended to approve one (1) small Green Street Pilot Project in Old Leawood [potentially in the 8500 block of Belinder] with the conditions that it be constructed if the following criteria are met:
 - Built with a reasonable cost for plants (that can mature over a three year time period),
 - in cooperation with the Home Owners Association and /Property Owner, (and if we do not get cooperation buy-in with the HOA/Home Owner then we do not do the Pilot Project)
 - Costs including soil prep and plantings.
 - Total Cost all within the \$25,000 price range.

John Kahl seconded the Motion.

Members in favor of the Motion were: Rawlings, Filla, Robinett, Cain, Kahl, S. Johnson

Members opposed to the Motion were: Weinberg

Motion passes.

Chair Rawlings adjourned the meeting at 8:58AM.

Minutes transcribed by Julie Stasi, Leawood Public Works Department
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