

City of Coral Gables City Commission Meeting
Agenda Item G-4
April 26, 2022
City Commission Chambers
405 Biltmore Way, Coral Gables, FL

City Commission

Mayor Vince Lago

Vice Mayor Michael Mena

Commissioner Rhonda Anderson

Commissioner Jorge Fors

Commissioner Kirk Menendez

City Staff

City Manager, Peter Iglesias

City Attorney, Miriam Ramos

City Clerk, Billy Urquia

Public Works Director, Hermes Diaz

Senior Sustainability Analyst, Matt Anderson

Public Speaker(s)

Agenda Item G-4 [Start: 4:52 p.m.]

Discussion regarding downtown storm water grates
(Sponsored by Mayor Lago)

Mayor Lago: G-4, an update on storm water grates.

Commissioner Anderson: Man of the hour and the woman of the hour.

Mayor Lago: We are down to two items.

Public Works Director Diaz: If I may please have the presentation up. Again, its Hermes Diaz, Public Works Director. Presentation about the downtown storm water grates. Just a little review. Some of this information has already been seen here, but the Riviera Alpha Base, which encompasses a good chunk of downtown Coral Gables. It is the city's largest direct storm water discharge into the Coral Gables waterway. It measures 66 inches at its narrowest section. It discharges a portion of LeJeune Road, Ponce de Leon Boulevard, and adjacent neighborhoods. We estimated the basing includes approximately 500 inlets. Approximately about a year ago, between

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February and May of 2021, SOP Technologies installed seven grates and three baskets as a pilot project. Debris from these baskets are removed, sorted and weighted quarterly for a year. These are some images of the stuff that was collected from inside of some of those drains. So, specifically to the baskets, collected organics, glass, metal, plastic cans, wrappers and cigarette butts. However, 96 to 99 percent of the debris that was collected by weight were organic materials. The average collection per basket per year was 162 pounds. We asked SOP Technologies to give us an estimate of what it would cost to install 500 baskets and it was \$536,000. And because these baskets require a more frequent cleaning, as opposed to our current NPDES program requires us cleaning the drains every four years, some areas get cleaned more often because of flooding issues, but four years is what the state requires of us. We need an estimate of \$100,000 per year so that we could clean these drains quarterly, as opposed to the regular schedule. So that's for the baskets. Into the grates. The grates, they are effective – and if I may go back so you see a picture of the grates. The grates to the right, the baskets to the left. So, grates are effective from preventing larger items from being introduced into the drainage system. We weren't able to measure the volume that these grates prevent from falling into the system because we have a regular street sweeping and in fact, in 2021, our street sweeper collected approximately 1.2 million pounds of debris from downtown Coral Gables.

Mayor Lago: I wonder how much of that is green matter, organic?

Public Works Director Diaz: I would say most of it, but I couldn't really, it doesn't get sorted. And SOP Technologies gave us an estimate to install 500 grates for \$230,500. There will be no additional maintenance on this, it doesn't require to be picked up, but that's the estimate that they gave us.

Mayor Lago: How effective are those grates, in the sense of being able to ensure that they don't go into the catch basin?

Public Works Director Diaz: So, if you take a look at the...

Mayor Lago: The leaves – those grates are going to go in.

Public Works Director Diaz: Correct.

Mayor Lago: Not in all of them, but eventually.

Public Works Director Diaz: So, if you look at the drain on the right side, that is not the only drain we have around downtown, but that is probably the most typical. So, you've got those two holes, so yes, a lot of the leaves – the basket is more effective on picking up the leaves that fall from the bottom, as you can see there. The opening is significantly lighter than the top, so that will mostly keep the larger stuff, the bottles and glasses, but I'm not sure how effective.

City Manager Iglesias: It really doesn't allow – the grate inlet, it's not capturing in the grate inlet. A lot of small things are going to go in.

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Public Works Director Diaz: Cigarette butts, leaves.

Mayor Lago: Plastic, leaves.

City Manager Iglesias: The basket is the one that captures the significant amount and that leaves the grate open. It takes care of the curb inlet, which is the part that goes up against the curb, but it does not take care of the grate inlet, which is the part that is flat.

Commissioner Anderson: Hopefully with the blower ordinance not blowing on streets will help reduce the organic matter. For any of you that had fish tanks, we understand the impact of organic matter, leaves even on a closed...

City Manager Iglesias: This is not a commercial area, so we have to be very careful with our maintenance, because most of it is impervious. So, the water tends to come up, not into the ground because there is very little permeability.

Public Works Director Diaz: And what happens often that things get carried away when it rains. So, you may not see an accumulation of leaves everywhere and then it rains, and everything piles up, so its specific events between the rainy season when it happens.

Commissioner Anderson: I have two of these grates in front of my house. I frequently will come out there with a shovel and remove the leaves.

Public Works Director Diaz: Oh yes, we have some places that we have to come up with some innovative ways of helping, because its not that the drainage system wasn't working, but every time it rains the leaves were collecting and backing up the water. So, we did a few things in some areas where that issue is. It was site specific, but whatever we did it seemed to help, because I haven't had any new complaints. So yes, in some areas the leaves are definitely a challenge. Next steps. If it's the desire of the Commission for us to proceed with these options, and at the last meeting the Mayor mentioned the grates specifically, so its something that we're definitely not budgeted for, so if it's the desire of the Commission that we proceed with this project, we'll have to put a request for next year's funding; and the storm water fund is an enterprise fund of sorts, so there are a number of commitments there. We have some grants that we applied for. It may need to be spread out over a few years, depending on what things become prioritized, and obviously if it's approved by the Commission, the budget is approved by the Commission, we'll put it out to bid right after.

Commissioner Anderson: We can always prioritize in areas that get the most bottles and trash and then work our way down.

Public Works Director Diaz: This basing is the basing that goes down the big alpha pipe and its not included in the presentation, but we are actually doing quite a few things already in that basing. We started in the area of Galiano/Mendoza, that system is made up of a slab covered ditch that runs all the way on Ponce and its got solar pipes all the way across. So, overtime, what we'll like to do and its going to take a while, its going to cost money, but you start replacing those solar pipes

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with...trenches and what that does is that the water goes underground that why that's not coming out of the outfall at all, and I think that's probably the best water quality that we can potentially do. We just finished a project on Galiano/Mendoza, we actually have a grant that was approved and we are going to continue down Galiano, a couple of blocks further south to connect to Ponce and there are also some grants that we are going for, as well that will facilitate us continuing through that process, because if we can eventually convert all those solar pipes, and they tend to be small as well, its not really good for drainage purposes, they tend to be 10 to 12 inch pipes. At some point we could replace all those pipes with...trench, we are actually reducing the flow that's coming out of that alpha and long term that is really probably the best way.

Mayor Lago: [Inaudible]

Public Works Director Diaz: The water is not coming out. Its going underground before it gets there.

Commissioner Anderson: Yes. It's like a French drain.

Public Works Director Diaz: Yes. It's a French drain basically, yes.

Commissioner Anderson: So, quick question for you.

Public Works Director Diaz: Sure.

Commissioner Anderson: For the projects that are being built in the North Ponce area that are along Galiano or Salzedo, are we having those projects take care of the pipes in those areas to have the trench built?

Public Works Director Diaz: Galiano-Salzedo, if we are warranted, yes, and that's something that – you have some areas that some work has been done already. I am not familiar with the specifics of those, but we could certainly look into it, but yes, that's the goal.

Commissioner Anderson: So, like when the development agreement comes through to your desk, just think about that to make sure that that box has been checked.

Public Works Director Diaz: Like for example, I think there is a project that just came in...that actually has a slap...ditch already there, so in that case we just ask them to clean it. A slap...ditch actually carries more water than...trench, has more capacity. Its more difficult to clean, but it creates a lot more storage. So that's just one project that pops up in my head, but yes, that is definitely one moving forward, to the extent that its reasonable and feasible.

City Manager Iglesias: What the director is saying is that whenever we have an issue with the positive system, not to remove the positive system, but to create that length of pipe into an infiltration system so that it will work as an infiltration system for water quality and the overall capacity as a positive system does not change.

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Commissioner Anderson: Alright.

Mayor Lago: Exactly.

Commissioner Anderson: Closed.

Mayor Lago: So, I think that we need to think about this. This is a lot of money; and while I think it's a very worthy effort, by the way, Commissioner, before your time here on the Commission, I'm the one, I'm the individual that brought that private entity to come and work for free and donate that sponge barrier and really help us with...

Public Works Director Diaz: That was a different group.

Mayor Lago: This lady, this very nice lady, the engineer, what was her name?

Commissioner Anderson: I watched that Commission meeting.

Mayor Lago: It's been a long day, I apologize. But you guys did a great job with that, and we've been working on this for some time, and it's been working, but obviously I would love to put those grates everywhere and put those baskets everywhere, but the cost is incredible.

Public Works Director Diaz: They are.

Mayor Lago: Maybe we can go after some sort of grant. What do you think? Maybe we can have the team, kind of now we have a little bit of information on what the costs are, maybe we can chase a big grant for that, at least at a minimum do the slats.

Public Works Director Diaz: We could take a look at that. It will have to go out to bid.

Mayor Lago: That's fine.

Public Works Director Diaz: Those grants require...

Mayor Lago: But at least we know what the number is.

Public Works Director Diaz: Yes.

Mayor Lago: We can go after – Matt, you think we can go out for some sort of grant and get that in our downtown, as we are a vibrant downtown, more square footage than Brickell, correct? We are growing. We have a lot of people here. Maybe we can go after some sort of grant and chase that.

City Manager Iglesias: Mayor, we can look at whatever grants are out there as far as – that's a water quality issue, so I'm sure we can go after some grant for that.

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Mr. Anderson: I know that Elsie in the grant's office has been really looking at water quality grants and that sort of thing. So, we can definitely continue to take a look at those opportunities.

Mayor Lago: Now that we have this information, let's try to chase something with that. Maybe we could present it as an out of the box grant idea.

Mr. Anderson: And we also have data from the year of our pilot study to be able to put in there, maybe advantageous.

Mayor Lago: That's a great idea.

Commissioner Anderson: It is because you can multiply that and say this much less is out in the bay.

Mr. Anderson: Yes.

Mayor Lago: Can you come back maybe in a month or so, maybe just see if we are chasing any grants.

Mr. Anderson: Through the Manager.

Mayor Lago: Through the Manager, of course. Always through the Manager. Okay. Thank you, Mr. Diaz, I appreciate you.

City Manager Iglesias: We'll be happy to look at that Mayor.

Mayor Lago: I'm trying to see how we don't have to spend money from the coffers, maybe we can get a grant. Maybe it's a year away, but at least we tried to do something. Thank you.