Green Stormwater Infrastructure: Exfiltration Tanks - Commercial Parking Lot

[00:06] Eban Bean: We're here today with David Allaire from CPPI. He's allowed us to come on site and talk with him about a project that's going on here to construct a hotel next to the University of Florida.

[00:18] Behind us is an ADS system that they're using for their stormwater management. It captures and infiltrates that water on-site. David's going to tell us a little bit about his experience with the system and how the system is constructed and maintained. When this is finished, what will the surface be on top of this stormwater management system?

[00:36] David Allaire: This will all be paving for parking area.

[01:41] Eban Bean: So, they will get a dual use out of this for having parking on the surface, and then capture and management of all the site's stormwater down below it. Is that right?

[00:48] Absolutely, yeah, this is essentially a zero-discharge site.

[00:51] Eban Bean: Fantastic. David, can you tell us about your experience with this type of system versus sites that have used more a conventional approach with the stormwater pond?

[01:01] David Allaire: Yes, absolutely. We found that this utilizes the property and land use much more efficiently, especially for the owner, with the rising cost of acquiring property, and then just the sheer size of the size pond we'd have to have for this size project.

[01:17] Eban Bean: So, what would have been taken out here if they would have had a pond here, or what would have been lost on this site if they had a pond?

[01:25] David Allaire: Oh, absolutely. There's another two-acre lot adjoining this that is owned by the same owner of this property, and it would essentially had to have been, the entire basin would have been stormwater.

[01:38] Mark Clark: David, when you install this, do you need any special technical support, like from, basically, the manufacturer? Do any of the construction workers here need to have any special skills to implement this?

[01:45] David Allaire: Well, first we try to seek out subcontractors that's had experience in the past with this. But most of the installation is a fairly simple process.

[01:54] Eban Bean: David, with the system being underground and sort of out of sight, can you talk a little bit about how the system is maintained and we ensure that it's functioning over the lifespan?

[02:03] David Allaire: Yes, during the construction of it we place certain provisions inside of isolated rows, so that where the inlets are, they are able to be jetted and cleaned out and back trucked out, so that if you ever get any sedimentation or any buildup in there, the system can be cleaned out and as well as inspected to make sure it's functioning properly.

[02:24] Eban Bean: So that system you described, that process, basically, they pressure wash, or they jet in the water into the inlet system, but at the same time they're sucking out that water to get all the sediments that have accumulated, is that, basically?

[02:35] David Allaire: Absolutely, most likely they'll have a spot at both ends with the inlet. And so, they can use, an inspection port is in the middle of that row. So, you can push it just towards the back truck and it takes all the sediment out. So, it's basically like a clean system again after they do that, which is not very often. The maintenance schedule on this stuff is very low. There's an inspection process per year, I think it is. I put one in ten years ago and haven't seen it cleaned out yet. So, it's pretty, you know, maintenance-free as far as the system goes.

[03:04] Eban Bean: So, how long have you been putting in these types of systems?

[03:07] David Allaire: The first one I did was about ten years ago, and then we put in some smaller systems on other projects to reduce the amount of stormwater basin that we'd have to have, and this currently is my first project with a complete system that has no stormwater retention. The technology's coming around where people are using it a lot more, and everybody seems to be happy with it.

[03:31] Eban Bean: So, do you see this kind of approach becoming much more common and even, maybe being, at smaller scales, being used?

[03:38] David Allaire: Yes, I personally do, because the cost point of it's coming down with the technology and as well as rising land prices to acquire the property. So, yeah, it's definitely a good option for owners and developers with this system because of just the cost is coming down with it, so it's nice.

[03:58] Eban Bean: Well, it definitely seems like a great way to maximize the use of the landscape, to not get just only your parking, but also get your stormwater management within the same footprint. David, we really appreciate you being with us today and talking with us. Thank you very much.

[04:12] David Allaire: Thank you. Absolutely.