CITY OF RALEIGH
STORMWATER MANAGEMENT ADVISORY COMMISSION (SMAC)
Minutes

Raleigh Municipal Building · 222 W Hargett St · Room 305
3:00pm · Thursday, October 2, 2014

Commission Members Present: Michael Birch, Marc Horstman, David Webb, Kevin Yates, Vanessa Fleischmann, Matthew Starr and Will Service

Stormwater Staff Present: Blair Hinkle, Mark Senior, Kelly Daniel, Suzette Mitchell, Kevin Boyer, Chris Stanley, Ron Davis, Veronica Barrett, Ben Brown, Lauren Witherspoon and Dominic Smalls

Members Absent: Francine Durso, JoAnn Burkholder and Chris Bostic

Guests: Chris Hoover, Felicia Hoover, Stephen Shiver, Beth Chesson, Scott Matthews, Michele Matthews and Joaquin Kilsy

Meeting called to order: 3:07 p.m. by Michael Birch

I**ntroduction** (New Stormwater Manager)
- Blair Hinkle

Motions (Absentees and Minutes)
- Absence: Mr. Birch made a motion to excuse Ms. Durso, Ms. Burkholder and Mr. Bostic from today's meeting. The motion was seconded by Mr. Yates and was passed unanimously.
- September Meeting Minutes: Mr. Yates made a motion to approve. The motion was seconded by Mr. Service and was passed unanimously.

The following items were discussed with action taken as shown.

Item 1 – Commission/Stormwater Staff Update on Matters of Importance to the Stormwater Management Advisory Commission

1.1 Updates:
- Staffing Update (Blair Hinkle)
  - Emily Nash - promoted to Stormwater Control Inspector
  - Mr. Birch - Requested an updated Stormwater Organization Chart
- LID/GI Status (Mark Senior)
  - Listed on Oct 7th Council agenda – Is requesting Council guidance on creating external stakeholders group.
- PWC and Council direction on WQ Cost Share (Mark Senior)
  - Council agreed to put a moratorium on additional water quality cost share approvals pending SMAC reviewing the policy and making a recommendation back to Council of any changes. Their concern is good amount of public money spent for a minimum amount of benefit. They want SMAC to review and provide comments back if we still recommend it's a good thing, or do we want to tweak that process and provide guidance back for them to decide if they want to modify the Water Quality Policy at all. The Water Quality Cost Share is on the workplan so we can delve into it a little deeper and it's a good opportunity to discuss at next meeting.
    - Mr. Birch indicated the Commission may also want to take a look at the Drainage Petition Policy at the same time. Maybe look at some options such as how other models are being used elsewhere and how they are handling drainage petition type projects. Mr. Horstman and Mr. Yates both agreed.

- Mark Senior: One of the questions was did SMAC do a full review of the program previously, which was no, not since it was created, only tweaked.

Action Item *(next meeting bring presentation/documentation for discussion)*

- Mr. Birch: What was helpful that staff used in a presentation was when the Division was created, the original stakeholders group came up with 4-5 guiding principles and a level service associated with each. At that time the stakeholders group wanted to achieve this level of service maybe in the short term, long term etc. If brought back as part of the discussion maybe we could understand where the original stakeholders were on terms of level of importance on certain things, like where we think we are on some of those items now. The Water Quality Cost Share and Drainage Petition Projects is added to that or whether we are accomplishing those desired level of services

Item 2 – Review and approval of Drainage Petition Requests

(*Powerpoint and agenda packet)*

2.1 Chris Stanley indicated there are eight (8) Drainage Petition requests up for review for the cycle. Seven are severe erosion and one structural.

- **Project 1** 500 Brent Rd (presented last spring)
  City Share $ 60,300
  Owner's Share $ 5,000
  Total Cost $ 65,300
  Problem Summarized: Severe erosion – This is a 3.1 priority, located in the Bushy watershed and the drainage area is 848 acres. **Proposed Solution**: Gabion baskets or soil lifts for approximately 65 LF on the right bank. Transition upstream and downstream by grading 2H:1V and armoring the toe with rip-rap. Upper bank will be stabilized using bio-engineering.

- **Project 2** 12801 Pegasi Way
  City Share $ 37,000
  Owner's Share $ 5,000
  Total Cost $ 42,000
  Problem Summarized: Severe erosion – This is a 3.1 priority, located in the Richland watershed and the drainage area is 32 acres. **Proposed Solution**: Stabilize the left bank using a combination of rip rap and gabion baskets. Special consideration to the close proximity of the house to the top of bank.

- **Project 3** 7317/7321 Lake Drive
  City Share $ 24,300
  7317 Laketree $ 2,100
  7321 Laketree $,600
  Total Cost $ 27,000
  Problem Summarized: Severe erosion – This is a 3.1 priority, located in the Perry watershed and the drainage area is 7 acres. **Proposed Solution**: A solution to this problem will require excavating out around the connection between the 24" RCP and 18" RCP and installing a yard inlet to area. Excavate out sinkhole area to determine cause and repair. Camera the pipe to do some additional exploratory work.

- **Project 4** 609 Northclift Drive
  City Share $ 12,400
  Owner's Share $ 3,100
  Total Cost $ 15,500
  Problem Summarized: Severe erosion – This is a 3.1 priority, and it drains acreage from Optimist Park **Proposed Solution**: Exploratory initially to determine extent and nature of sinkholes; potential for spot repair, yard inlet at separated joint or pipe replacement.
  Property Owner (present): *The sinkholes are moving in streets and sidewalk and it could be bigger issue with erosion if it's not fixed.*

- **Project 5** 6425/6429 Belle Crest Drive; 6500 Valley Estates Drive

City Share	$ 48,300
6425 Belle Crest	$ 3,400
6429 Belle Crest	$ 3,200
6500 Valley Estates	$ 1,900
Total Cost	$ 56,800

Problem Summarized: Structural Flooding – This is a 4.2 priority, located in the Mine Creek watershed. **Proposed Solution**: Design solution to remove the flared end section of pipe on 6500 Valley Estates Drive property and extend the 30-inch concrete pipe approximately eight feet, install an open throat type inlet and fill and grade the existing open ditch between the pipes. Remove the undersized 24-inch pipe and install a 36-inch diameter pipe and grate type inlet within the drainage easement between 6425 and 6429 Belle Crest Drive.

- **Project 6** 400 Rosehaven Drive

City Share	$ 51,700
Owner's Share	$ 5,000
Total Cost	$ 56,700

Problem Summarized: Severe erosion – This is a 5.1 priority, located in Big Branch watershed. **Proposed Solution**: Sloping approximately 45 linear feet of the western stream bank a minimum of 1.5-foot horizontal to 1-foot vertical, placing rip rap stone along the toe and lower section of the bank and stabilizing the upper reaches with turf reinforced matting and vegetation or other approved bioengineering method. Install approximately 60 feet of gabion baskets along the eastern bank where the bank height exceeds six feet.

Property Owner (present): *Erosion is killing a larger tree that's either going to fall on their house or neighbor. There's erosion underneath the river bank causing the soil to fall down where the porch is situated. This has gotten significantly worse in 2 years, and will eventually take the porch down*.

- **Project 7** 4125 Windsor Place *(presented in May)*

City Share	$ 35,900
Owner's Share	$ 5,000
Total Cost	$ 40,900

Problem Summarized: Severe erosion – This is a 5.1 priority, located in Big Branch watershed and the drainage area is 70 acres. **Proposed Solution**: Remove and replace 45 LF of 42" corrugated metal pipe with 48" RCP pipe. Stabilize approximately 10 LF of the inlet and outlet end of the pipe by grading to a 1.5:1 slope, installing rip-rap and vegetate upper banks with erosion control matting and vegetation.

- **Project 8** 6100/6101 Crestdale Circle/6108 Valleyfield Circle

City Share	$ 239,200
6100 Crestdale	$ 5,000
6101 Crestdale	$ 5,000
6108 Valleyfield	$ 5,000
Total Cost	$ 254,200

Problem Summarized: Severe erosion – This is a 5.2 priority, located in the Mine Creek watershed. **Proposed Solution**: Solution includes sloping the banks 2'H:1'V; 2 foot horizontal to 1foot vertical and stabilize with rip rap stone, matting and vegetation. In strategic locations where this approach is not feasible this estimate includes soil lifts and gabion basket structures. The approximate length of stream to be stabilized along the Crestdale Circle bank is + 397 feet. The approximate length of stream to be stabilized along the Valleyfield Circle bank is + 271 feet.

Property Owners (present): *They have lived in home for 18 years and until 2 years ago it was just little stream, now it's a deep raging river with trees falling and it's taken our fence several times. It's really close to our house and in three years we have lost 8 ½ feet of yard. The yard keeps shrinking and we keep moving our fence back. We no longer have kids in the backyard.*

Property Owners (present): *They have lived in their home for 11 years. In the past couple years it's gone downhill. We've had 2 trees almost fall on the house, luckily it stopped and we had them cut and removed. We have huge trees that are going to come down. It's only a matter of when it will happen, who will be back there, and is it going to hit our house.*

Discussion:

Commission: Are there any CIP projects planned near this area?
Chris Stanley: Our concern is the cost and the way the program is set up it would be a financial hit toward our petition program. There is a systematic issue here and perhaps more to do than just a short stretch stream stabilization. From a practicality standpoint it would make sense but from a financial standpoint it would different. We would have to take look at that CIP project and the cost of this project instead of going against the petition project. This would fit more in the CIP type realm.
Mark Senior: We have $550,000 potential projects here and the annual budget is $750,000. This is the first of two cycles and generally the Commission tried to stay within 50% of the number so funds will be available for the 2nd group when it comes up in the spring.
Commission: Could a portion of the petition budget supplement the CIP budget.
Chris Stanley: That could be done a lot easier.
Blair Hinkle: You get the economy of scale, the projects are close together clearly you could save on some mobilization cost. I think there's a distinct difference in the Petition project ~vs~ Capital project. Potentially, moving some of that funding over to the Capital side would probably be the easier way to go.
Commission: Do we have to delay the project until the next cycle when you re-evaluate the logistics of that.
Mark Senior: The project could be approved by the Commission, with the hope we could combine with CIP that staff could try to make it happen, but there's no need to delay this in order to work with CIP project. The downside, is if you try to tie together this project with that CIP project you will have to wait for that CIP project to mature and most likely property owners will not want to wait that long.
Commission: Since project 5 and 8 are located in the same vicinity would it be possible to combine into one to reduce mobilization cost.
Chris Stanley: It would make more sense on the construction side. In the past, we had contractors to build projects as they were done. It was stopped and we wanted to give others a chance to bid. We like to move toward an official on call master construction contract. Recently, we've sent out a bundle for bid of projects and right now that's our approach.
Commission: Lake Tree Drive can we approve to fund the design and incorporate into bid package with CIP project.
Mark Senior: We are not set-up budget wise to do that. We would get in trouble trying to mix funding on these projects. The Drainage Assistance Policy is inclusively setup in working on private property where Council has agreed to spend public money on private property but only under these circumstances. If we try to mix CIP projects in this, we will be at odds with that policy.
Commission: What level of analysis from a CIP standpoint can occur between now and April next year in terms of what needs to occur before it can properly be evaluated as part of the CIP.
Mark Senior: The first thing is we would have to have an analysis on what the priority level is. We decide if it's something we fund the design on this year, the next or years following. Then construction funding typically comes the year after or together. That can be done anytime if put in the CIP, then we could establish if it happens the next year or something we budget three years down the road.
Commission: Would like to see projects 5 & 8 looked at and have Scott to possibly reach out to multiple contractors for mobilization costs.
Commission: We need to see where it ranks on the list of CIP priorities and see if it's a viable option prior to next drainage petition projects. If we don't take action on Belle Crest and Crestdale and act on project 1-4 and 6 we would have $500,000+ left for the second round of drainage petition projects. We acknowledge both Belle Crest and Crestdale have merit. This is the type of project that needs a larger view scope wise and potentially could be dealt with through the CIP process. From a timing standpoint in terms of implementing these, they are about on the same track. There's time between now and the next cycle of drainage petitions to

access both and bring the information back to SMAC both where these projects (5 & 8) together would rank on the CIP list, and also some analysis from staff if this is a great opportunity for a larger project that isn't band-aids where needed, but also to address a larger issue that the city has encountered before around here.

Drainage Petition Motion & Amendments

2.2 **Mr. Birch** made a motion to recommend approval of funding for projects 1, 2, 3a-b, 4 and 6 and direct staff to analyze the CIP priority for projects 5 and 8 if lumped together, and evaluate whether it's a good time to look at a watershed master plan for this project.

2.2.1 Mr. Starr, seconded.

2.2.2 Mr. Webb said he would like to lump project 5 with the recommendation. When you look at 5a-c it's not an expensive fix for that, so he would like to include with the recommendation

2.2.3 Mr. Birch said he's amendable to including project 5 a-c into the motion so long as staff still includes those. He does not want to lose the ability to look at the larger area. I don't know if including 5 in there that we could still analyze that and 8 together for CIP purpose.

2.2.4 Chris Stanley said he does not see the benefit in lumping Project 5 and 8 together in the CIP study approach. Project 5 is simple enough it can be fixed with this project and # 8 is enough alone to look from a CIP perspective.

2.2.5 Amended Motion – Mr. Birch recommended approval of funding for projects 1 - 4, 5a-c and 6, (action item) with a CIP evaluation for project 8, Mr. Starr seconded, the motion passed unanimously.

Action Items *(before next drainage petition presentation)*

- *CIP evaluation for project 8*
- *Have Scott Bryant contact multiple contractors for mobilization cost*

Item 3 – Other Business

3.1 Stormwater Offices moving to Professional Building on Monday, Oct 6th

Meeting adjourned at 5:23p.m.

Suzette Mitchell