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2 **APPROVED**

3 MINUTES OF THE REMOTE/WEBEX STORMWATER COMMISSION
4 VILLAGE OF NORTHBROOK
5 COOK COUNTY, ILLINOIS
6 January 28, 2021

7 **Commissioners present (5):**

8 Chairman Thomas Burke
9 Adele Sturgis
10 Greg Hoeft
11 Peter Rosner
12 Craig Hetue

13
14 **Members not present (2):**

15 Pedro Cevallos
16 Leonard Rago

17
18 **Others present**

19 John Albrecht, Architectural Control Commission
20

21 **Staff present:**

22 Matt Farmer, Village Engineer
23 Jim Baxa, Civil Projects Engineer
24 Colleen Brunner, Recorder
25

26 **Call to Order**

27 Member Burke called the remote meeting to order at 6:33 P.M. through a WebEx meeting.
28

29 **Review of the Minutes from January 7, 2021 Meeting**

30 Member Sturgis made a motion, seconded by member Rosner to approve the minutes with the
31 following changes;

32 **Page 1, Line 40**

33 From "Member Rago also serves on the CAPT ..." to "Member Rago, as the Stormwater Commission
34 representative, serves on the CAPT ..."

35 **Page 3, Line 21**

36 Change "impervious fees *fund larger stormwater management projects in Northbrook*" to
37 "Impervious fees **were originally deposited in the General Fund, which originally funded all**
38 **stormwater management projects.**"

39 **Page 3, Line 25**

40 Correct first word, "fees" to "feels."

41 On a voice vote, the motion to approve the amended minutes passed unanimously.
42

43 **Hear from the Audience on Topics not on the Agenda**
44

45 John Albrecht from the Architectural Control Commission is on the Climate Action Planning Team
46 (CAPT). He stated that there is an action finder with over 200 action items that will be further
47 condensed down to items the Village can improve on. They were then shared with the ACC for input on

1 importance. Farmer explained that Len Rago will provide appropriate updates to the SWC from the
2 CAPT, but Rago would not be attending tonight's SWC meeting. Albrecht stated that Trustee Israel
3 challenged Go Green Northbrook to find a site for a rain garden on Village property.

4 5 **Old Business**

6 7 **a) Continued Discussion of Impervious Fees and Residential Detention Requirements from the** 8 **August 26, 2020 and January 7, 2021 SWC Meeting**

9
10 Matt Farmer recapped the impervious discussion from the 8-21-2020 and 1-7-2021 SWC meeting. He
11 replied to the SWC three questions from the last meeting.

12
13 Q: Can a revised map of the impervious classifications be provided? A: The most revised map is shown
14 on the Northbrook GIS and can be accessed publicly. Staff is working on updating the map, and it will
15 update again when PUD's are added as a classification.

16 Q: What fund do the impervious fees go to, and how much is collected annually?

17 A: Collected fees go to the Stormwater Utility Fund. Fees collected for the past 5 years: FY 20-21
18 (Partial Year) = \$91K; FY 19-20 = \$66K; FY 18-19 = \$70K; FY 17-18 = \$92K; FY 16-17 = \$78K

19 Q: Does Glenview allow 50% maximum coverage for residential lots, or is it less depending on lot size?

20 A: The maximum allowable is 45%, and less on larger lots. Email sent to SWC 01/25/21 with more
21 details.

22
23 Farmer then asked the commissioners to consider 6 questions listed in the January 26, 2021 memo
24 pertaining to impervious. The SWC answered the first four questions below.

- 25
26 **1) Is the current 2,500 SF maximum additional impervious allowed with a fee appropriate for**
27 **Single Family Residences (SFR's)?**
28 **2) Should the Village track total additional impervious allowed with a fee per property?**
29 **3) After the maximum impervious allowed with a fee is exceeded, should detention be provided**
30 **starting at pre-construction impervious area?**
31 **4) Should an existing lot be given a calculated existing impervious credit? ie: 30% of total lot.**
32

33 Member Burke- 2,500 SF is okay but would consider going to 2,000 SF. He is more concerned when a
34 developer gets around the 2,500 SF by building incrementally. He thinks this question relates to #4 and
35 what size home the lot was originally intended for. The problem is the incremental additions added
36 after the new home is constructed. A new 2,000 SF SFR would not need detention, but a later addition
37 of 600 SF should need detention with a total equivalent of 2,600 SF impervious. Farmer added that
38 providing detention for small amount of impervious will result in a small holding tank that may not be
39 functional. Burke would like to see what reverse engineering would show relating to the needed
40 restrictor size.

41
42 Member Sturgis- The 30% existing lot calculation makes sense as it evens things out between old and
43 newer neighborhoods. She asked why the Village does not track cumulative additions of impervious
44 coverage. This has been brought up for decades with no tracking. Farmer replied that tracking in the
45 future would not be hard to do. He believes it hasn't been tracked because there was no immediate
46 use for the data to issue permits or enforce codes. The Village Engineer has the authority to reduce the

1 additional impervious allowed below 2,500 SF if there is a good reason to do so. Going forward, these
2 permits can be tracked if the SWC recommends it along with changes to code that would make the
3 information useful. Sturgis commented that many villages have a real estate transfer tax that may
4 involve an inspection to capture non-compliance on a property for something like impervious
5 coverage. Perhaps an inspection could be required when selling a home that would calculate what
6 percentage of the lot is covered. This is when unpermitted improvements could be captured. She
7 doesn't have a strong feeling one way or the other concerning the 2,500 SF issue. She feels staff has
8 the best grasp on how it should be done fairly.

9
10 Member Hoeft- He relayed his own experience when adding a garage. His permit process and the
11 paperwork required directed him to include all impervious on his site. It was complicated but very
12 detailed. Is the process the same today? Farmer replied that any permit adding greater than 400 SF
13 would require a site plan and calculations but future permits could require a total lot impervious
14 calculation. Hoeft feels the 2,500 SF is roughly appropriate but his is okay with 2,000 SF. He would like
15 to plug the loophole of incremental additions skirting detention requirements. As to question #4- 30%
16 coverage credit- the example Farmer presented showed one home needing detention and another not
17 because it had more impervious onsite before construction. The two homes were next door to each
18 other, had the same lot size, and were proposing the same total impervious after construction. He feels
19 both lots should be treated equally. He is interested in the Glenview model where there is a sliding
20 scale of impervious allowed depending on the lot size.

21
22 Member Rosner- He would like to see the reverse engineering data before he makes a decision on a
23 maximum improvement number when detention is required. The 2,500 SF figure seems a bit high, but
24 wants to base it on what is practical. He does like the idea of the 30% credit on lots for new SFR's,
25 which will eliminate the example Farmer described and Hoeft referenced. He thinks tracking
26 impervious improvements is needed for future permits.

27
28 Member Hetue- 2,000 SF or 2,500 SF is fine, and suggests leaving that to staff to make a
29 recommendation. Impervious additions should be tracked for future permits. #3- He doesn't have an
30 opinion yet on detention going back to preconstruction impervious, and this situation needs more
31 thought to make it fair. He does like the idea of 30% credit or any percentage staff feels is reasonable.

32
33 Jim Baxa & Matt Farmer have been working on these questions for a while. On new SFR's the
34 percentage of impervious coverage credit could be flexible depending on the lot size. For example, a ¼
35 acre lot may be allowed a credit of 30% and a 1 acre lot may be allowed a credit of 20% because the
36 original homes on the larger lots did not cover as much of the lot percentage wise.

37
38 Baxa would like to see new SFR's get a credit for the existing house and driveway up to the building
39 setback line. He thinks the 50% lot coverage rule is too high and causing cumulative impacts to
40 drainage. The impervious fees need to be increased because the current fees are very low compared
41 to just providing onsite detention.

42
43 Farmer has concerns with leaving the maximum allowed impervious at 2,500 SF before detention is
44 required, because if a property adds 100 SF more, they need to provide detention for 2,600 SF. He is
45 concerned that the cost of that amount of detention will effectively price out any other development,
46 and impervious may get installed without permit. He likes the concept of allowing only 1,000 SF

1 additional impervious before detention is required. The cost for detention going back to 1,000 SF is 2.5
2 times less than the current 2,500 SF, and is a similar model as Northfield. Farmer likes the 30% credit
3 rule for new SFR's or Baxa's approach of giving a credit for the house and driveway up to the building
4 setback line. He would like the SWC to discuss requiring an additional 500 SF added when detention is
5 required. This could cover any future incremental improvements. It is very expensive to add small
6 amounts of detention, plus access to the rear yard of most lots is difficult, and can cause a lot of
7 landscaping costs. Burke thought that the additional detention required beyond the impervious
8 created may be too steep of a requirement, but understands the issues created when trying to only
9 add small amounts of detention after the original construction. Farmer suggested that perhaps a letter
10 can be provided to the permit applicant recommending more detention for future development. If the
11 applicant determines they do not feel constructing additional detention is feasible, a document can be
12 recorded with how much impervious is allowed on the property with the constructed amount of
13 detention. Burke liked the concept. Farmer explained that currently new permits require a minimum
14 2 ½" restrictor but will look at a 1" or 1 ½" restrictor size for 2,500 SF. It may be worthwhile require the
15 existing 2.5" restrictors in Northbrook to reduce so a smaller size when the property comes in for a
16 permit so that the existing detention on-site is appropriately used.

17
18 Member Sturgis- So many of the new developments are in central Northbrook, with smaller lots. How
19 would these changes affect the cost to build a new home? Farmer said that staff can provide some
20 realistic numbers for stormwater costs. Sturgis clarified that she is talking about all fees to redevelop a
21 lot (demo, stormwater, etc.) so that the Commission can have a clear understanding of total costs to
22 redevelop.

23
24 Member Hoeft- he asked if a small amount of detention was required, could a rain garden suffice
25 versus a restrictor? Farmer thought we would have to establish what the term "rain garden" means.

26
27 Farmer asked the commissioners to consider question #5 listed in the January 26, 2021 memo
28 pertaining to impervious.

29
30 **5) Is the current fee structure of \$0.00, \$0.80 and \$1.60 per SF added impervious for Class I, II,
31 and III appropriate?**

32
33 Member Sturgis- Sturgis feels the impervious fee should be increased and hasn't kept up with inflation.
34 The stormwater fee on the utility bill should be related to the lot's percentage of impervious coverage.
35 The fees are out of date and the fees collected are often not used in the areas of the new SFR
36 impervious. Perhaps there could be four categories, areas that have no detention, detention TP40,
37 Bulletin 70 standards and Bulletin 75 standards. Those areas that have detention should pay less.
38 Perhaps a resident could get a monetary credit for installing a rain garden. She feels there should be a
39 fair way to charge fees depending on runoff from the property.

40
41 Member Burke- Keep the fees simple and increase them to possibly \$0.00/SF, \$6.00/SF and \$12.00/SF.
42 However, even though these numbers are realistic for what it costs to build detention, these costs are
43 significantly higher than what we have now. Moving towards a higher number like Northfield of
44 \$4.50/SF may be more realistic and is better than what we have today. Ultimately, we want detention
45 provided by the developer so that it is placed where the impervious was created. The best way to do
46 this is to reduce the 2,500 SF requirement.

1
2 Member Rosner- The fees are way too low. We should consider a procedure that when a home sells, a
3 certificate is required that notes the impervious coverage of the lot. Farmer said that we would need a
4 new real estate transfer system or tax to identify how much impervious is allowed. This could require
5 unpermitted impervious to be removed before the home is sold.

6
7 Member Hetue- He could see a \$0.00, \$2.50 and \$5.00 fee. The current fees are too low.

8
9 Member Hoeft- He follows Burke's logic and the increase in money for future detention projects. The
10 Village can collect the detention fees and use it for the best project outcomes. The impervious fees are
11 too low but he would like to see incentives for rain gardens.

12
13 Member Burke- He agrees with Adele and Greg that it would be good to have a credit system for
14 detention using rain gardens or other methods. Northbrook is not giving credits to the detention or
15 rain garden type items. This should be considered and applied to the current stormwater fee.

16
17 Question #6 was as follows:

- 18 **6) How will properties be evaluated that have already added significant impervious with no**
19 **constructed detention when the owner proposes to add a small amount of impervious that**
20 **requires a permit?**

21
22 Farmer stated that we will table #6 to a future meeting and requested members email comments to
23 him.

24
25 **b) Climate Action Planning Update- Leonard Rago**

26
27 Member Rago was absent from this meeting so his update will be on the next agenda.

28
29 **New Business**

30
31 **a) Board of Trustees Request to Evaluate Rain Gardens- Referred from January 12, 2021**
32 **Committee of the Whole Meeting**

33
34 Farmer told the members the specifics of Trustee Hebl's rain garden. When building her new home she
35 opted not to put in a rear yard drain but added the 9' X 50' garden that is 4' deep with rock. He said
36 that from what he has seen, the garden is substantial in size, working well, and maintained
37 appropriately. Go Green Northbrook submitted an email in support of rain gardens and Farmer read
38 the letter out loud. Farmer likes the idea of rain gardens if we can come up with a good design that
39 makes sense for the situation. The following questions were asked by the Board of Trustees:

- 40
41 **1. Are rain gardens an appropriate option for detention on residential sites?**
42 **2. Are rain gardens an appropriate option for other drainage issues on residential sites?**
43 **3. Are rain gardens an item we should encourage rather than just an option?**
44 **4. Should the Village incentivize the installation of rain gardens or other methods of detention?**
45 **5. Are there areas of the Village that are more beneficial for the installation of rain gardens than**
46 **others?**

1 **6. What low risk, high yield opportunities are there for rain gardens in Northbrook?**

2
3 Member Hoeft- #1-Yes they are appropriate if they are properly designed, #2- Possibly, #3- No
4 Response Recorded #4- This would take money from other demands, so this needs further information.
5 He would like to see the Village do a public rain garden.

6
7 Member Hetue #1- yes, #2-yes, #3- not sure how to encourage them and #4- consider a credit on
8 impervious increase.

9
10 Member Burke- Is the question for individual lots or larger subdivisions working with MWRD and the
11 Village? MWRD will not allow rain gardens in exchange for detention. #1- Yes for a SFR, #2- It depends
12 on the issue. There are a lot of areas that rain gardens do not thrive. #3- Yes, they should be
13 encouraged, but how do you enforce the maintenance or removal of the rain garden when the home
14 sells? How would we force a homeowner to maintain it to Village standards? #4- Yes, there could be
15 ways to incentivize it.

16
17 Member Sturgis- #1 and #2- The success of the garden is highly site dependent as it pertains to the soil,
18 perk test and the removal of trees. #3- Does staff have time to monitor the condition of gardens? The
19 Village already has the Private Property Cost Share Program that provides higher percentage cost share
20 to the resident for rain garden type installation. This should encourage the use of rain gardens. #4- Do
21 we want to use public funds for gardens that might not be maintained and the cost benefit is
22 unknown? The installation and maintenance of gardens on Village property is costly. Village funds
23 spent should be used and verified to make a difference. We don't have a good idea of cost/benefit
24 ratio for rain gardens compared to detention or other forms of stormwater management. The loss of
25 depressional storage has contributed to runoff, and rain gardens are essentially depressional storage.
26 She would need the above answered before she can make an educated reply to all questions. There
27 doesn't appear to be specific rain garden standards such as placement, existing lot drainage or any
28 tracking on the ones installed to date. The maintenance of rain gardens can be very expensive when
29 hiring a company to maintain them according to published information.

30
31 Member Rosner- #1- Rain gardens in general are a good idea but only where effective and useful. #2 &
32 3- open to rain gardens as an alternative means of drainage but would like to see standards set. #4-
33 would like to see data or numbers to compare usefulness.

34
35 Farmer feels the rain gardens need an outlet or drain. The pipe would drain the garden before it
36 becomes too wet. Some soils drain fine and others do not. He is uncomfortable exchanging rain
37 gardens for typical detention on SFR lots as it may work for a few years but with lack of maintenance
38 they can fail. Farmer is responsible for protecting the neighbors from flooding due to the development
39 of nearby properties due to the additional impervious. It would not be reasonable to tell a
40 downstream neighbor that they should not experience increased run off as long as the rain garden is
41 working. The rain garden is not a constant like underground detention that can be evaluated if it is
42 working or not working. Farmer believes there will be a middle ground for credits, locations, and
43 requirements.

44
45 Jim Baxa can't be definite on exchanging detention for rain gardens, he needs to think more on it. He
46 believes that they will work for small rain events on residential properties concerning standing water.

1 He has experience with rain gardens not being maintained, or a lawn care service not understanding
2 what has been planted and not providing proper care.

3
4 Farmer stated that several new commercial developments have MWRD required volume control
5 (naturalized detention) such as Lifetime Fitness, The Elaine and 770 Skokie. All of these have a
6 professional team maintaining them.

7
8 Member Sturgis mentioned Greenbriar School as another site. It appears the larger the area, the more
9 successful it is. Farmer thinks the larger sites work well because they are typically professionally
10 maintained due to their size. Sturgis thinks the continuity of ownership positively impacts the rain
11 gardens on commercial sites. Sturgis has experience with smaller rain gardens in town not being
12 successful or maintained.

13
14 Member Hoeft asked if staff could gather a list of successful rain gardens in the Village. Farmer is not
15 aware of a list, but the Village could provide a variety of garden locations if the data had a purpose.

16
17 Farmer explained due to the time, we will not cover questions #5 and #6, but asked the Commission to
18 provide comments via email for the next meeting.

19
20 **Hear from the Commissioners concerning new topics**

21 None.

22
23 **Next Meeting Date**

24 February to be determined. Resident requested to come to March meeting.

25
26 **Adjourn**

27 There being no further business, Member Hoeft made a motion, seconded by Member Hetue to
28 adjourn the meeting. On a voice vote, the motion was unanimously carried and the meeting adjourned
29 at 8:45 pm.

30
31 Respectfully submitted,
32 Colleen Brunner