SPECIAL Meeting Minutes: Plumbing Board

Date: Time: Minutes by: Location: Nov. 6, 2023 9:30 a.m. Lyndy Logan Minnesota Room, DLI, 443 Lafayette Rd. No., St. Paul, MN 55155

Members

- 1. Karl Abrahamson (Secretary) WebEx
- 2. Richard Becker (Chair)
- 3. Mike Dryke
- 4. Kent Erickson (Vice-Chair) WebEx
- 5. Mike Herman WebEx
- 6. Jonathan Lemke
- 7. Bruce Pylkas
- 8. Scott Stewart
- 9. Rick Wahlen
- 10. Mike Westemeier (DLI CO's Designee) David Weum (MDH CO's Designee) – WebEx

Members Absent

Sam Arnold Justin Parizek Shane Willis

DLI Staff & Visitors

Brittany Wysokinski (Board Counsel, DLI) Lyndy Logan (DLI) Brad Jensen (DLI) – WebEx Hannah Mardaus (DLI) – WebEx

DLI Staff & Visitors continued...

Steve Nuebel (DLI) Josiah Moore (DLI) – WebEx Jon Boesche (ABC MN/ND) – WebEx Jake Brunoehler (Ads Pipe) – WebEx Kyle Dimler (City of Hutchinson) – WebEx Jack Fogarty – WebEx Larry Justin (KFI Engineers) – WebEx Mike Johnson (J-Berd Mechanical) David Knaeble (Civil Site Group) – WebEx Stephanie Menning (MN Utility Contractors Assn.) Amanda Meyer (City of Cottage Grove) Pete Moreau (Advanced Drainage Systems) Matt Pavek (Civil Site Group) – WebEx Jim Peterson – WebEx Joseph Rief (Civil Site Group) – WebEx Gary Schick (City of Rochester) – WebEx Mark Scholle (Prinsco) – WebEx Brian Schultz (Schultz Engineering) – WebEx Tim Setala (Pierce Pini) – WebEx Mike Sheehan (Civil Site Group) – WebEx Adam Smith (Viega) - WebEx

1. Call to Order, Chair Presiding

- A. The meeting was called to order by Chair Becker at 9:34 AM. Roll call was taken by the Secretary and a quorum was declared with 10 of 13 voting members present in person or via WebEx.
- B. Announcements Introductions (members and attendees) Chair Becker
 - Everyone present in person and remotely are able to hear all discussions.
 - All votes will be taken by roll call if any member is attending remotely.
 - All handouts discussed and WebEx instructions are posted on the Board's website.
 - WebEx instructions/procedures can be found on the board's website at: <u>https://www.dli.mn.gov/about-department/boards-and-councils/plumbing-board</u>

2. Approval of meeting agenda

A motion was made by Pylkas, seconded by Wahlen, to approve the agenda as presented. The roll call vote was unanimous with 10 votes in favor; the motion carried.

3. Approval of previous meeting minutes

Draft minutes from the regular meeting on Oct 17th and the special Oct. 31st Ad hoc Storm Surcharge Committee meeting will be approved on Jan. 16, 2024, along with the Nov. 6 special Plumbing Board minutes.

4. Regular Business

Expense reports were approved.

5. Special Business

- A. Possible recommendation of ad hoc Committee on Storm Drainage Surcharge / RFI submitted Oct. 16, 2023
 - Kyle Dimler referred to his RFI, **Attachment A**, stating that he is a building official with the City of Hutchinson, Minnesota. Dimler indicated that a drainage inlet pipe set at the engineering reference point of 100 year event is technically infeasible in most situations; therefore, he posed the following question:
 - Would a storm sewer drainage pipe at the inlet or storm retention pond be deemed to be not surcharged, providing the invert at the storm sewer drainage inlet is designed to be above the MPCA required minimum pond level? The required minimum pond level is set at 1800 cubic feet per acre of drainage area plus the volume of one inch of runoff from the net increase in impervious surfaces created by a construction or development project.
 - Dimler referred to the illustrations in **Attachment B** and said at the ad hoc Storm Surcharge Committee meeting they spent a significant amount of time looking at these illustrations. The bottom half of it predominantly where we have towards the bottom of that pool we have what's been put to as the wet pool level and that is where the water will stay at a static level basically and contain that 1800 cubic feet of water from the impervious surface of a construction project. And then the line above that is the water quality level and that is basically where the water would rise to in a one inch rain event which would instantly be attributed to the pond. And in the discussion with MPCA and some of the engineers that were also contributing to that ad hoc committee, who pointed out that if the inlet pipe, which is the inflow pipe shown on the left side of that illustration, if it were raised to be just above that water quality level, that would ensure that that pipe is not surcharging in 90% of the rain events that Minnesota experiences in the course of a year. So, we proposed this for consideration in this RFI as hopefully something of a reasonable middle ground, if you will, between what has been in practice for multiple decades with the pond in that pipe being right at the water level and raising the pipe to a higher level to ensure that at least 90% of the time, that pipe will not be surcharged if it's set at or above that water quality level.
 - Chair Becker said he believes they all agree that we can't design our plumbing systems to handle 100% of situations that may come up given that we size our sanitary systems with fixture units that count for diversity and not the full flow, same with our water systems. The intent of the plumbing codes are to cover you in most situations but can't cover for every possible situation.

- Abrahamson read the motion from the Oct. 31st Surcharge Committee meeting as follows:
 - A motion was made by Abrahamson, seconded by Wahlen, to accept the invert of the sewer to discharge to the pond at the water quality level to reduce a 90 percent chance of surcharging the sewer, as it pertains to 310.5 and 309.1. The roll vote was unanimous with 5 votes in favor of the motion; the motion passed.
- Wysokinski shared RFI draft language; Board members provided input and modifications resulting in the language below:
 - RFI Language: Section 310.5 of the 2020 Minnesota Plumbing Code states that "[n]o fitting, fixture and piping connection, appliance, device, or method of installation that obstructs or retards the flow of water, wastes, sewage, or air in the drainage or venting systems . . . shall be used unless it is indicated as acceptable in this code or is approved in accordance with Section 301.2 of this code." The obstruction or retardation of flow is known as "surcharge" in the industry. Section 309.1 states that "[d]esign, construction, and workmanship shall be in accordance with accepted engineering practices and shall be of such character as to secure the results sought to be obtained by this code." The Board determined that an inlet pipe that is above the level attained by the water quality volume, as defined by MPCA guidelines, is designed in such a way so as to both meet accepted engineering practices and is also of such a character as to secure the results sought to be obtained by this code. Therefore, storm sewers designed so that the inlet pipe enters above the level attained by the water quality volume are not considered surcharged by design.

A motion was made by Pylkas, seconded by Lemke, to use the RFI language below for the Plumbing Board's Final Interpretation. The roll vote was unanimous with 10 votes in favor of the motion; the motion passed.

Section 310.5 of the 2020 Minnesota Plumbing Code states that "[n]o fitting, fixture and piping connection, appliance, device, or method of installation that obstructs or retards the flow of water, wastes, sewage, or air in the drainage or venting systems . . . shall be used unless it is indicated as acceptable in this code or is approved in accordance with Section 301.2 of this code." The obstruction or retardation of flow is known as "surcharge" in the industry. Section 309.1 states that "[d]esign, construction, and workmanship shall be in accordance with accepted engineering practices and shall be of such character as to secure the results sought to be obtained by this code." The Board determined that an inlet pipe that is above the level attained by the water quality volume, as defined by MPCA guidelines, is designed in such a way so as to both meet accepted engineering practices and is also of such a character as to secure the results sought to be obtained by this code. Therefore, storm sewers designed so that the inlet pipe enters above the level attained by the water quality volume are not considered surcharged by design.

• Attachments C, D, and E were not discussed but are included as reference materials.

6. Announcements

Next regularly scheduled meeting, 9:30 a.m., in-person at DLI / WebEx

- January 16, 2024
- April 16, 2024
- July 16, 2023 (annual meeting)
- Oct. 15, 2024

Wysokinski noted this would be her last board meeting; she has accepted a position with another company.

7. Adjournment

A motion was made by Lemke, seconded by Wahlen, to adjourn the meeting at 10:19 a.m. The roll call vote was unanimous with 10 votes in favor of the motion; the motion passed.

Respectfully submitted,

Karl Abrahamson

Karl Abrahamson Secretary

Green meeting practices

The State of Minnesota is committed to minimizing in-person environmental impacts by following green meeting practices. DLI is minimizing the environmental impact of its events by following green meeting practices. DLI encourages you to use electronic copies of handouts or to print them on 100% post-consumer processed chlorine-free paper, double-sided.

Plumbing Board Request for Interpretation

PRINT IN INK or TYPE

NAME OF SUBMITTER

Rule(s) to be interpreted (e.g., 4714.0330)

Reset

Attachment A

4714.0310.5

The Minnesota Plumbing Code (MN Rules, Chapter 4714) is available at www.dli.mn.gov/CCLD/PlumbingCode.asp Has a request for interpretation been submitted to Department of Labor and Industry (DLI) staff, either as a verbal request or a written request? Yes No

If "No," contact DLI staff at 651-284-5898. The DLI is responsible for administration and interpretation of the Minnesota Plumbing Code, and all requests must be processed and provided a DLI interpretation before being referred to the Plumbing Board. This form is intended to be used to request an interpretation from the Plumbing Board only as a resolution of dispute with DLI interpretation.

| | | 4 | | |
|------------------------------|-------------------------------------------|-------------------------------------------|--|--|
| 4714.0310.5 | David J. Lanik | 10/9/23 | | |
| CODE/RULE to be interpreted: | NAME OF DLI employee gave interpretation: | DATE interpretation originally requested: | | |

Provide a copy of the DLI interpretation with this request (a copy must be provided as reference).

| Is there a local dispute with an Inspector of other official? | If Yes, state the name or type of official |
|---------------------------------------------------------------|--------------------------------------------|
| | |

Yes 🖌 No

State the circumstances of the initial dispute:

The City of Hutchinson and TKDA received a plan review comment referencing MN Plumbing Board Final Interpretation PB0159 pertaining to "surcharge" of storm sewer drainage piping referencing a "high water" level noted on the stormwater pond which the storm sewer piping drains to.

Explain why you disagree with the interpretation given to you by DLI staff:

The implied requirement is at best, very difficult and at worst, technically impossible to implement because of site grading, MPCA design requirements, and existing invert elevations of municipal stormwater infrastructure.

What is your interpretation of the language:

The drainage piping shall not be installed in a manner that obstructs or retards flow of drainage.

List any other information you would like the Board to consider:

As the Plumbing Board has acknowledged a drainage inlet set at the engineering reference point of a 100 year event is infeasible, would a storm sewer drainage pipe at the inlet of a stormwater retention pond be deemed to be not "surcharged" providing the invert of the storm sewer drainage inlet is designed to be above the MPCA required pond level of 1800 cubic feet per acre of drainage area plus the volume of 1.0 inch of runoff from the net increase in impervious surfaces created by the project?

Information regarding submitting this form:

 Submit any supporting documentation to be considered electronically to <u>DLI.CCLDBOARDS@state.mn.us</u>. Once your Request For Interpretation form has been received, it will be assigned a file number. Please reference this file number on any correspondence and supplemental submissions.

Information for presentation to the Board.

- · You will be notified with the date of the Board Meeting in which your Request For Interpretation will be heard.
- Limit presentations to 5 minutes or less.
- Be prepared to answer questions regarding the Code, the circumstances that led to the dispute and please bring copies of any documentation.

What you can do if you disagree with the Board's determination:

• You may appeal the Board's determination pursuant to Minn. Stat. Chapter 14.

| RFI File No. | Date Received by DLI | Dated Received by Board 10/17/2023 | Date of Board Meeting |
|----------------------------|----------------------|------------------------------------|-----------------------|
| PB0160 | 10/16/2023 | | 10/17/2023 |
| Title of RFI RFI PB0160 | By: | | |

This material can be made available in different forms, such as large print, Braille or on a tape. To request, call 1-800-342-5354 (DIAL-DLI) Voice or TDD (651) 297-4198.

| Submitted by: | | | | | |
|-------------------|---------------------|----------------|--------|--------|----------|
| NAME | | FIRM NAME | | | |
| Kyle Dimler | | City of Hut | chinsc | on, MN | |
| ADDRESS | | CITY | | STATE | ZIP CODE |
| 111 Hassan St. SE | | Hutchinso | n, MN | 55350 | |
| PHONE | SIGNATURE (original | or electronic) | DATE | | |
| (320) 234-4220 | Kyle Dimle | er | 10/16 | /23 | |

For assistance or questions on completing this form, please call 651-284-5898 or 651-284-5889.

Mailing address:

Plumbing Board c/o Department of Labor and Industry 443 Lafayette Road North St. Paul, MN 55155-4344

*** Please remember to attach all necessary explanations and supporting documentation*** Page 2 of 2

Attachment B





PROFILE

Summary of permit requirements

Permit requirements are included throughout this page. A summary of these requirements is provided below.

- 1. Stormwater ponds must not be located in, nor drain water from, wetlands unless mitigated for
- 2. Stormwater ponds must not be located within surface water bodies or any buffer zones required under <u>Section 23.11 of the CSW permit</u>
- 3. The *Required* minimum permanent pool volume, or dead storage (V_{pp} below the outlet elevation), is 1800 cubic feet of storage below the outlet pipe for each acre that drains to the pond
- 4. The *Required* minimum water quality volume, or live storage (V_{wq}), is 1.0 inch of runoff from the net increase in impervious surfaces created by the project. This should be calculated as an instantaneous volume
- The <u>CGP</u> requires that the V_{wq} is discharged at no more than 5.66 cubic feet per second per acre of surface area of the pond. The surface area of the pond is calculated at the elevation that results from the V_{wq} being dropped into the pond instantaneously
- 6. Permanent pool depths must be a minimum of 3 feet and maximum of 10 feet at the deepest points
- 7. Basin outlets must have energy dissipation
- 8. Adequate maintenance access, typically with a minimum width of 8 feet, must be provided. Where a forebay is installed, direct vehicle/equipment access should be provided to the forebay for sediment removal and other maintenance activities. The maintenance access should extend to the forebay, access bench, riser, and outlet, and allow vehicles to turn around
- 9. An emergency spillway must be provided to pass storms in excess of the pond hydraulic design. The spillway must be stabilized to prevent erosion and designed in accordance with applicable dam safety requirements (<u>NRCS Pond Standard 378</u> and <u>Mn/DNR dam safety guidelines</u>). The emergency spillway must be located so that downstream structures will not be impacted by spillway discharges. If the spillway crosses the maintenance access, materials meeting the appropriate load requirements must be selected
- 10. The riser must be located so that short-circuiting between inflow points and the riser does not occur
- 11. Basin outlets must be designed to prevent discharge of floating debris
- 12. Permittees must design basins using an impermeable liner if located within active karst terrain
- 13. Inlet areas should be stabilized to ensure that non-erosive conditions exist during high-flow events
- 14. All pond designs should incorporate an access bench
- 15. (Minnesota Department of Health Rule 4725.4350) states that a minimum horizontal distance between a water-supply well and the ordinary high water level of a storm water retention pond is 35 feet

Design inlets

- A. It is *Highly Recommended* that inlet pipe inverts be located at the permanent pool elevation. Submerging the inlet pipe can result in freezing and upstream damage.
- B. To prevent freezing and blockage of inflow, it is Highly Recommended that inlet pipes not be fully submerged and that they be buried below the frost line. The Minnesota Department of Transportation has developed frost and thaw depths for several Minnesota sites.
- C. It is also Highly Recommended to design the inlet to reduce or prevent scour, by including riprap or flow diffusion devices such as plunge pools or berms.

DEPARTMENT OF LABOR AND INDUSTRY

Division of Construction Codes and Licensing <u>REPORT ON PLUMBING PLANS</u>

PROJECT: 3M Hutchinson Storm Sewer Pipe Design, 905 Adams St. SE, Hutchinson, McLeod County, Minnesota, *Plan No. PB-R2309-0174*

OWNERSHIP: Samantha Holt, 3M, 905 Adams St. SE, Hutchinson, MN 55350 **SUBMITTER:** Samuel Wickstrom, TKDA, 444 Cedar St., St. Paul, MN 55101

Civil Plans Dated: October 12, 2023 Civil Plans Revise Dated: October 23, 2023 Initial Date Received: September 20, 2023 Last Date Received: October 23, 2023 Date Approved: October 24, 2023

This review is limited to the provisions of the Minnesota Plumbing Code, Minnesota Rules, Chapter 4714 and assumes the data on which the design is based are correct. Approval is contingent upon meeting the requirements listed below. A copy of the approved plans and this report must be retained at the project location.

INSPECTIONS: This project will be inspected by the local municipality. The contractor/installer must obtain all required inspection permits from the Hutchinson Building Official, Kyle Dimler. All plumbing installations must be tested and inspected in accordance with the requirements of the Minnesota Plumbing Code. No plumbing work may be covered prior to inspection.

REQUIREMENTS:

- 1. All plumbing shall be installed in accordance with the 2020 Minnesota Plumbing Code (see Minnesota Rules, Chapter 4714). All pipe, fittings, traps, fixtures, materials, and devices shall be listed or labeled by a third-party listing agency and comply with the applicable standards referenced in the code (see Sections 301.2 and 1701.1).
- 2. The site storm sewers system appears to be subject to backwater by design (see Section 310.5). The Minnesota Plumbing Board has issued a final interpretation on the matter which may be viewed at: https://www.dli.mn.gov/sites/default/files/pdf/PB0159.pdf An Alternative Engineered Design under Section 301.5 was submitted and reviewed by this office to address this item. An addendum review letter for the Alternative Engineered Design will be issued and shall be attached to this report.
- 3. The proposed HDPE storm sewers material listed in the specifications as ASTM D3350 are not currently recognized in the 2020 MN Plumbing Code but were requested to be used as alternate materials (see Table 701.2 and Section 301.3). The products appear suitable, safe, and sanitary for the intended use and may be used with approval for the above-referenced project only and shall have no effect beyond the jurisdictional boundaries. Regardless of this approval the following requirements must also be met:
 - a. Pipes must be listed, labeled, and no fittings are permitted. Water-tight resilient joints must be used at all connections, including structures.
 - b. Pipes must be installed with a minimum 10-feet separation from water piping and any building.
 - c. HDPE connection to a different material must use an approved listed application-specific transition coupling meeting ASTM C1173 or ASTM C1461 (see Section 705.10).
 - d. Installation must be open-trench per Section 314.4.1 and manufacturer's installation instructions. The MN Department of Labor and Industry is in no way endorsing a product, or any advertising, and is not responsible for any situation that may arise from its use.

3M Hutchinson Storm Sewer Pipe Design Plumbing Plan No. PB-R2309-0174 Page 2 of 2 October 24, 2023

- 4. Polyethylene storm sewers must meet ASTM F714 or ASTM F894 (see Section 1101.4.5 and Table 701.2). Joints must be heat fused per Section 705.5.1. Connection to a different material must use an approved application-specific transition coupling meeting ASTM C1173 or ASTM C1461 (see Section 705.10). Polyethylene sewers may not cross above water service lines (see Section 720.1).
- 5. The HDPE storm sewer piping has issues holding an air test so they must not be installed within 10 feet of a building. Storm sewers within 10 feet of the building or water service line must be tested per Section 1107.0.

NOTES:

- 1. The scope of this project consists of the construction of an existing facility. The plumbing includes installing a 24-inch storm sewer pipe from an existing manhole structure into the first stormwater pond and a 36-inch storm pipe is identified as an equalizer pipe between two extended detention basins and considered as part of the storage basin system.
- 2. This facility is served by existing municipal sewer and water service connections. **This approval is for the** site storm sewer only. Plans and specifications for the building plumbing system must be submitted to and approved by this office prior to installation. If after review of the building plumbing plans it is found that any of the site utilities are undersized and/or non-compliant, the site utilities must be brought into compliance with the Minnesota Plumbing Code before installation of the interior plumbing may begin.
- 3. The current 2020 Minnesota Plumbing Code, Chapter 4714, and related information can be found at: _ http://www.dli.mn.gov/business/plumbing-contractors/2020-minnesota-plumbing-code

Authorization may be withdrawn if installation does not begin within one year. Additional requirements may result from changed conditions or additional information.

Approved:

David J.'Lanik Public Health Engineer Plumbing Plan Review and Inspections Unit 651/284-5842 david.lanik@state.mn.us www.dli.mn.gov/business/get-licenses-and-permits/plumbing-plan-review

cc: Samuel Wickstrom, TKDA Brent Paulsen, TKDA Samantha Holt, 3M Kyle Dimler, Building Official File

DEPARTMENT OF LABOR AND INDUSTRY

October 24, 2023

Samuel Wickstrom TKDA 444 Cedar St., St. Paul, MN 55101 St. Paul, MN 55101

Gentlemen/Ladies:

Subject: Plumbing at 3M Hutchinson Storm Sewer Pipe Design, 905 Adams St. SE, Hutchinson, McLeod County, Minnesota, Plan No. PB-R2309-0174

This letter is in response to the alternate request received by the Department of Labor & Industry (DLI) to design and install the on-site storm sewer that would be above a smaller rainfall event. This design is not approved in the Minnesota Plumbing Code, but at your request it has been reviewed by this office as an alternate method under Minnesota Rules, part 4714.0301, Section 301.2.

This office has received a written request from the project design engineer and owner, acknowledging the proposed alternative design is not a code approved method in the Minnesota Plumbing Code. The submitted documentation indicated raising inlet pipe above the required high water level was not feasible, therefore, this proposed storm sewer system and pipe inlet elevations are properly designed and sized for this project.

The DLI has determined that the above-listed installation is suitable, will allow access for a complete regular inspection, maintenance, repairs, and sanitary for its intended use at this facility. Therefore, this request is approved. The approval applies only to the 3M Hutchinson Storm Sewer Pipe Design, Plan No. PB-R2309-0174.

During installation the contractor installing this system must verify with the Building Official in the City of Hutchinson, that they approve the design installation and all testing of the system at this facility. The Minnesota Department of Labor and Industry is in no way endorsing this design or any installation and is not responsible for any situation that may arise from its use.

Sincerely,

David J.⁴Lanik Public Health Engineer Plumbing Plan Review and Inspections Unit 651/284-5842 david.lanik@state.mn.us www.dli.mn.gov/business/get-licenses-and-permits/plumbing-plan-review

cc: Kyle Dimler, Building Official Brent Paulsen, TKDA Samantha Holt, 3M File

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Logan, Lyndy (DLI)

| From: | Rick Wahlen <rwahlen@edenprairie.org></rwahlen@edenprairie.org> |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sent: | Friday, October 27, 2023 4:20 PM |
| То: | Logan, Lyndy (DLI); Bruce Pylkas; Karl Abrahamson; Richard Becker; Westemeier, Michael (DLI) |
| Cc: | Wysokinski, Brittany (DLI); Mardaus, Hannah (She/Her/Hers) (DLI); Jensen, Brad (DLI); Jonathan Lemke: Weym, David (MDH): Kent Frickson: Mike Herman: Shane Willis: Michael Dryke: Scott Stewart: |
| | Sam Arnold; Justin Parizek |
| Subject: | Ad Hoc Storm Drainage Surcharge Committee (Plumbing Board) -Link to Minnesota Stormwater Manual |

This message may be from an external email source.

Do not select links or open attachments unless verified. Report all suspicious emails to Minnesota IT Services Security Operations Center.

Hi everyone.

I haven't had much time to delve into our petitioner's guidance documents governing the construction of stormwater facilities, but I will be studying this further this weekend in preparation for our meeting on Monday.

By the way, did someone invite the MPCA to join our meeting?

In case you'd like a link to the online stormwater manual referenced many times by the engineers who've testified to our committee, I've copied it below:

https://stormwater.pca.state.mn.us/index.php?title=Main_Page

The following terms and definitions are found on the uniform sizing criteria page and may be of some value to us:

Design Storm An engineering term for a single rainfall event with a defined intensity, duration and statistical recurrence interval commonly ranging from 0.5 to 100 years. These single event storms are based on long-term rainfall data and are used in hydrologic models to predict the peak discharges and runoff volumes associated with each type of storm. Unless otherwise indicated, all design storms discussed in the Manual has a 24-hour duration and a Type II distribution.

Extreme Storm Volume (V_{p10}) The greatest runoff storage volume is used to the peak discharges of infrequent but very large storm events to pre-development levels. The 100-year design storm, which has a statistical recurrence interval of occurring once in one hundred years, is used by most communities. Design frequently involves 100-year design storm peak discharge control. In other cases, peak discharge control is waived if development is excluded from ultimate 100-year floodplain, or an acceptable downstream hydrologic analysis indicates it is not needed. Stormwater BMPs must be designed to provide safe overflow of the 100 year-peak discharge even if extreme storm control is not required at the site. Extreme floods can cause catastrophic damage and even loss of life. The storage volume needed to store and detain them is denoted as V_{p100} . Note that storms more "extreme" than the 100-year event do occur in Minnesota. The extreme term is used relative to other volume terms for perspective.

Permanent Pool Volume (V_{PP}) The <u>CGP</u> requires that all wet sedimentation basins contain a permanent pool with a volume of 1,800 cubic feet of storage for each acre that drains to the basin. This equates to 1/2 inch of runoff per acre. The permanent pool must reach a minimum depth of three feet, stay below 10 feet and be configured to minimize scour and resuspension of solids.

Rick Wahlen

Manager of Utility Operations City of Eden Prairie

Attachment E

m M

MINNESOTA POLLUTION CONTROL AGENCY

520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300 800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

September 28, 2023

Richard Becker, Chair Minnesota Plumbing Board C/O Minnesota Department of Labor and Industry 443 Lafayette Road N. St. Paul, MN 55155

RE: Final Interpretation Regarding Discharge of Storm Sewers

Dear Mr. Becker,

The Minnesota Pollution Control Agency (MPCA) is sending this letter regarding the Final Interpretation issued by the Minnesota Plumbing Board (Board) in response to Inquiry PB0159 on February 10, 2023, regarding surcharge of storm sewer systems. The Board's current interpretation is having widespread negative consequences on the MPCA and many communities and businesses we work with, and we are writing to ask that the Board work collaboratively with us to address the concerns that have been raised to us and to you directly.

MPCA understands that the Final Interpretation was issued in response to a general question, "Are storm sewers outside of the building footprint allowed to be surcharged?" The term 'surcharged' was not defined in either the Request for Interpretation or the Final Interpretation Comments made during public meetings. The lack of a definition means people do not understand the scope of prohibitions created by the Final Interpretation.

Another substantive issue is that the analysis of Plumbing Code written in the Final Determination references an applicable section of the code but includes no written specifics regarding how a 'surcharge' would obstruct or retard flow, resulting in conflict with this section of the code. This limits the ability of our permittees to develop alternative engineering approaches to either comply with the Final Interpretation or to request project-specific alternatives as allowed by the Plumbing Code. A detailed explanation of the engineering principles supporting the Final Interpretation needs to be included to properly inform proposers on whether their designs are adequate to address the intent of the Plumbing Code.

The Final Interpretation has had a dramatic and unsustainable impact on the MPCA. First, it appears to conflict with design guidance that is incorporated into the Minnesota Stormwater Manual and has been typical practice in stormwater management systems for many years. Thousands of stormwater ponds throughout the state have been designed in accordance with this guidance. Since the issuance of the Final Determination, we have been asked to undertake case-by-case review of many projects that are

Name: Plumbing Board Letter Page 2 Date: September 22, 2023

proposing to implement typical designs consistent with our guidance and issue letters commenting on the technical adequacy of these designs.

Additionally, the MPCA issues thousands of water quality permits each year that govern the discharge of stormwater from construction activities that have been impacted by the Final Interpretation. Many of these sites are required to install best management practices on additional impervious area, leading to installation of storm sewers coupled with retention or infiltration. Construction plans need to appropriately meet the requirements of MPCA permits in concert with all other applicable requirements, including the Plumbing Code. Due to the issues with the Final Interpretation described above, a substantial contingent of our permittees has requested extraordinary administrative review of engineering plans to move forward with designs that are consistent with our guidance and have been in use for years.

We are aware that the Board has hosted Ad Hoc Committee meetings to discuss this issue. At the Board meeting last week, it seems like this issue may not meet the threshold for good cause rulemaking. One of the members suggested the Board may want to consider stormwater systems differently, which MPCA would fully support. To ensure that our permittees can continue implementing appropriate management practices for water quality and are able to reasonably do so in accordance with the Plumbing Board, we are requesting the opportunity to meet to resolve these concerns.

Respectfully,

a Var disposed

Dana Vanderbosch Assistant Commissioner of Water Policy, and Agriculture

cc:

Kate Perushek, Minnesota Department of Labor and Industry, Deputy Commissioner Todd Green, Minnesota Department of Labor and Industry, Director of Construction Codes and Licensing Nicole Blasing, Minnesota Pollution Control Agency, Municipal Division Director Ryan Anderson, Minnesota Pollution Control Agency, Stormwater Section Manager