

February 6, 2026
2250890

Mr. Bryan McDowell, P.E.
Fishbeck
4775 Campus Dr
Kalamazoo, MI 49008

RE: 13 S Union Street Drainage Review
City of Douglas – Section 17

Dear Bryan:

Our office has reviewed the *revised* construction drawings dated December 18, 2015 and January 21, 2026, and calculations *dated February 2, 2026*, and submitted to our office *February 2 and February 5, 2026*, via email. These were reviewed for compliance to *Allegan County Drain Commissioner's Site Development Rules dated March 2021*. The following are our comments as it relates to the above noted submittals. *Comments from our February 2, 2026 review are in black; comments from this review are in blue italics.*

1. The project includes a two-story, 10,339 square foot building (5,119 square foot first floor) with associated parking and driveways on about 0.31-acre site. The site is not within an existing County drainage district.
2. The following items are noted regarding the calculations:
 - a. LGROW spreadsheets were provided. (Please fill in the information on the cover page of the LGROW spreadsheet.) *This was completed.* Additional calculations were provided.
 - b. Please provide the geotechnical report that shows the soils and water table elevation. We note that on C201 the water table is noted as 611.4; this does not meet the 2 foot separation requirement from highest known groundwater to bottom of the detention pond. Please address how this will not impact the capacity of the system as there is only a geotextile wrap on the system. *A geotechnical report from MTC dated October 9, 2025 was provided that showed additional borings with groundwater that meets the 2 foot separation.*
 - c. Please provide the actual void space in the Aquabox being provide to verify the capacity is the same as the required flood control volume. *Information was provided on the drawings that indicates storage volume in Aquabox and pipe have storage to meet the 2-100 year storage volume.*

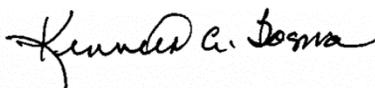
3. The following items are noted regarding the construction drawings:
 - a. The infiltration trench may not be used for water quality as it does not have enough separation from the water table. This will impact the water quality calculations as shown in the LGROW spreadsheet. *The geotechnical report indicates that the water table separation can be met.*
 - b. Please provide information as to how to prevent flooding to the east if the system overflows due to large storm event or system clogging. *The narrative provided noted that the system is sized for the 2-100 year storm event; there are three inlets below the FF of the building so the changes of all of them being clogged is minimal; and there is a berm on the east end to minimize flow to the east.*
4. The developer shall verify with the City if a maintenance agreement is required. It is recommended for this type of system. Please note that this system is considered a private system.
5. The developer is responsible for obtaining all permits and approvals needed for this project.
6. Signed and sealed copies of the final drawings and calculations need to be submitted to ACDC's office if has not already been submitted.
7. The review fee of \$500 and the administrative fee is \$50 administrative fee. In addition, all review fees above these amounts will need to be paid in accordance with ACDC's standards.
8. After this project is constructed, the required documentation per ACDC's standards will need to be submitted before final approval is given for the project. This will include engineer's certificate, and record drawings.

In summary we recommend that construction plan approval be *granted*. Final approval will need to have the items outlined in numbers 7 and 8 above. We recommend that City of Douglas withhold occupancy permits until the documents requested are received and final approval from ACDC's office is submitted.

If you have any questions regarding the project, please call me.

Sincerely,

Prein&Newhof



Kenneth A. Bosma, P.E.

KAB/kab

Mr. Bryan McDowell, P.E.

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cc: Mr. Chris Machiela, ACDC
Mr. Brent Scholten, ACDC
Mr. Sean Homyen, City of Douglas
Mr. Jack Brown, AMK Properties
Mr. Lucas Timmer, P&N

P.S. The above letter was prepared to assist the Allegan County Drain Commissioner's office in their review of this project's storm water management plan. It is not an approval and is not to be used by anyone as the Drain Commissioner's approval letter.