



PLANNING COMMISSION AGENDA
TUESDAY, FEBRUARY 9, 2021
7:00 P.M.

**Meeting to be held telephonically/electronically
pursuant to Minn. Stat. Sec. 13D.021**

Call-in Information: 612-517-3122 (Conference ID 615 209 653#)
Electronic access (via Microsoft Teams): link available at <https://medinamn.us/pc>

1. Call to Order
2. Public Comments on items not on the agenda
3. Update from City Council proceedings
4. Planning Department Report
5. Public Hearing – Medina Townhome Development LLC –
1432 County Rd 29 – Planned Unit Development Concept Plan
6. Ordinance Amendment – Chapter 8 of the City Code – Pertaining to
stormwater management requirements
7. Approval of January 12, 2021 Planning Commission Minutes
8. Council Meeting Schedule
9. Adjourn



828.33 may permit much wider impact than anticipated.

A member of the Wild Meadows HOA is concerned that the proposed change to 828.33 may permit much wider impact than anticipated.

The proposed change to Section 828.33, subd. 5(iv)(1) on pages 3 and 4 says:

(iv)Notwithstanding (i) above, land development, redevelopment, or construction on a Site which increases impervious surface by 5,000 square feet or greater but less than 14,520 square feet may be exempt from establishing STPs if all of the following conditions are met.: (1) The activity occurs on a single residential property; and (2) The total amount of existing and proposed impervious surfaces is less than 20% of the Site; and (3) The drainage from 5,000 square feet or more of the additional impervious surfaces are not directed towards one of the following features within 100 feet: a wetland, lake, waterbody or area of slope in excess of 4:1; and (4) The drainage from the additional impervious surfaces are not channelized onto neighboring property, rights-of-way or waterbodies.

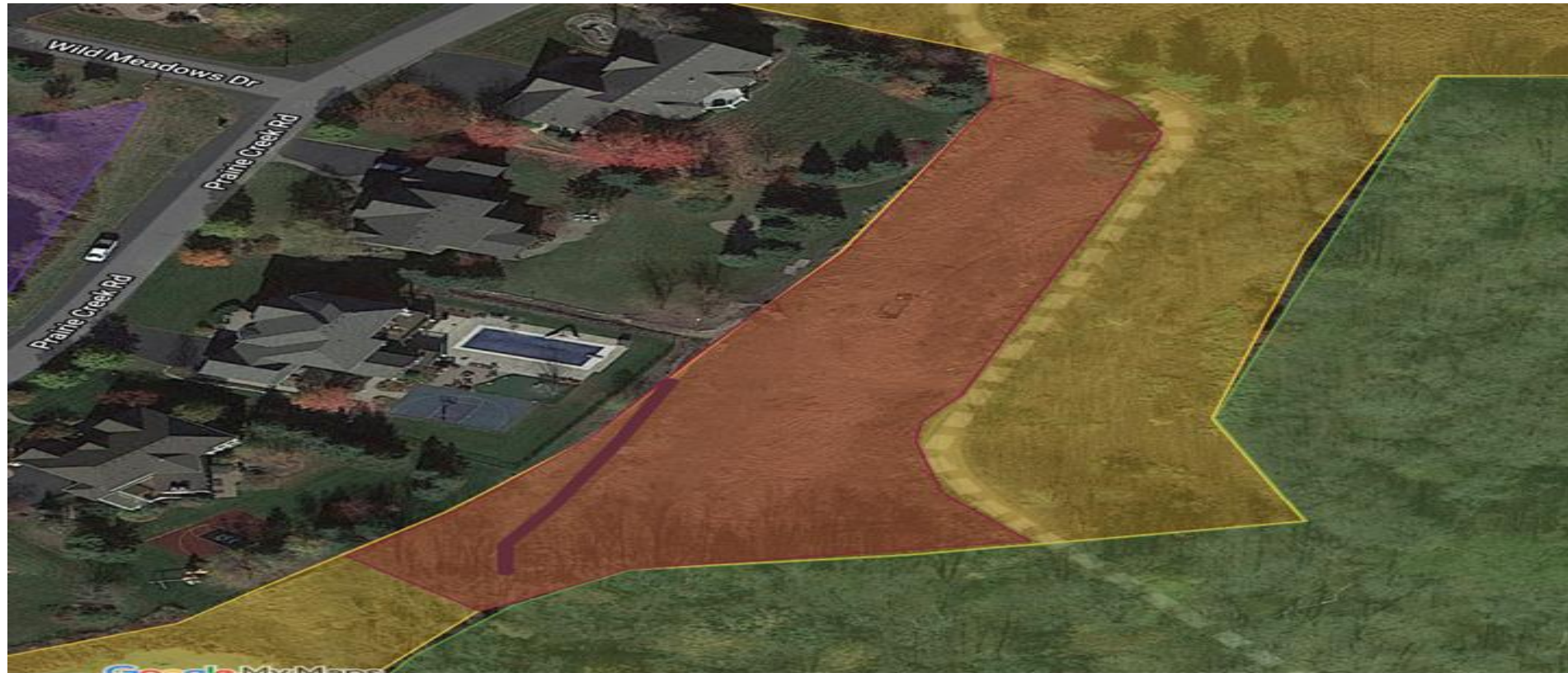
However, the term "residential property" does not seem to be a defined term in the ordinance. "Lot" is defined in sectin 820.17 subd. 23, "outlot" seems to be a subset of "lot".

The suggestion would be to better define "residential property" to make it clear that, for example, a residential property does not include "outlots".

Our concern is that the amended definition in 828.33 could be construed to permit a change to one or more of the Outlots of Wild Meadows, or to retroactively allow some substantial changes to the Wild Meadows Outlots.

Attached are three photos that show existing changes that we are concerned could be viewed as permitted under the amended ordinance.+

125 Prairie Creek Drive had a rock trench installed from the edge of the yard to a ravine in the adjacent woods that enters a creek. The size of the are in orange is 1.15 acres.



125 Prairie Creek Drive had a rock trench installed from the edge of the yard to a ravine in the adjacent woods that enters Elm Creek Watershed.

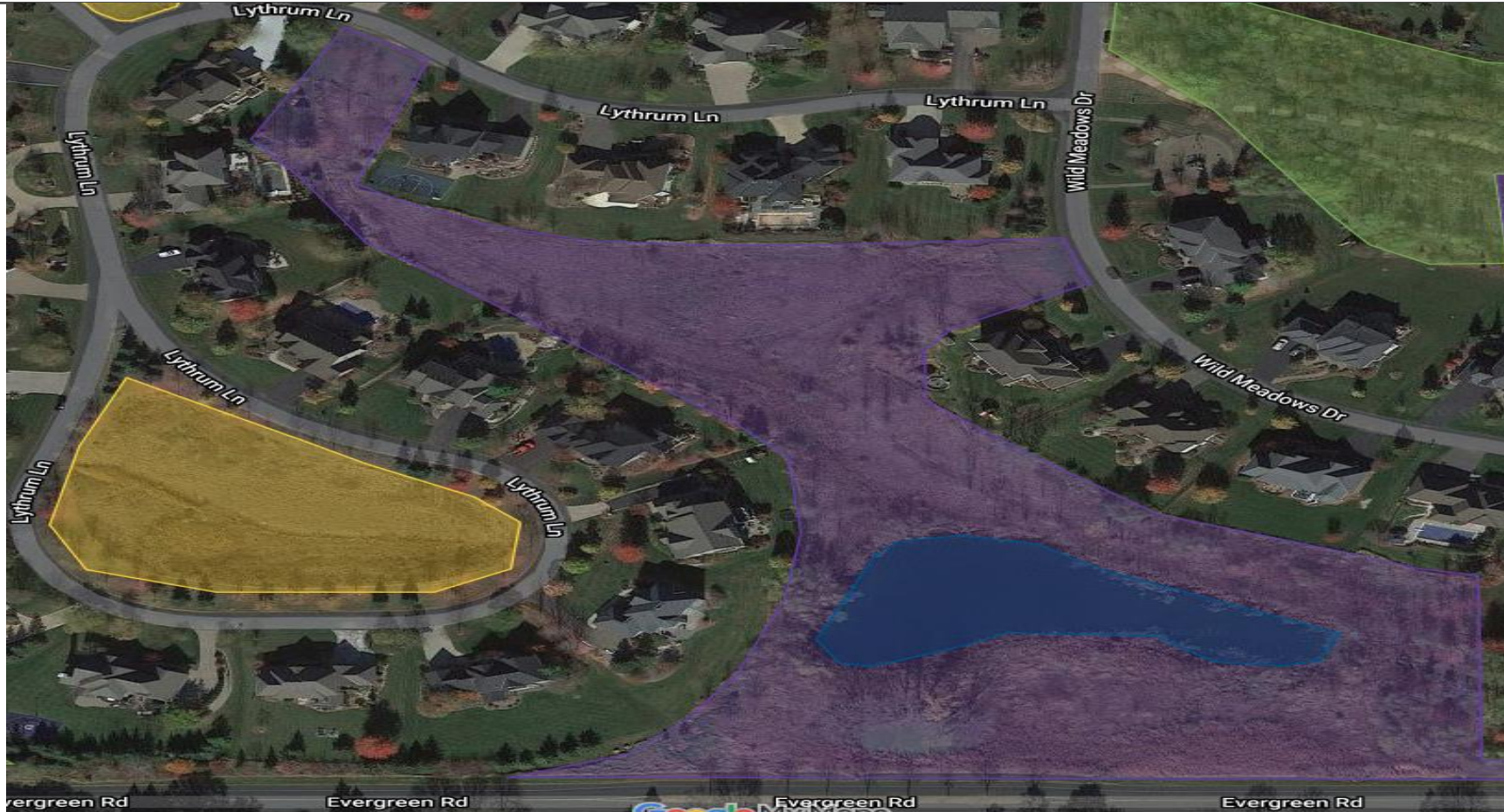
The way it was installed was incorrect and did not follow the Ecological Wild Meadows Land Management Plan and this also needs to be removed.

Most of this area was disturbed by heavy equipment and has large eroded areas on the hillside behind the house and where the rock trench stops in the ravine. The area has also been overrun by volunteer trees and invasive plant species. The area will need the trench removed, trees removed, the soil amended, and invasive species controlled before replanting.



340 Lythrum Ln Prairie and Wetland Stormwater MS4 Pond

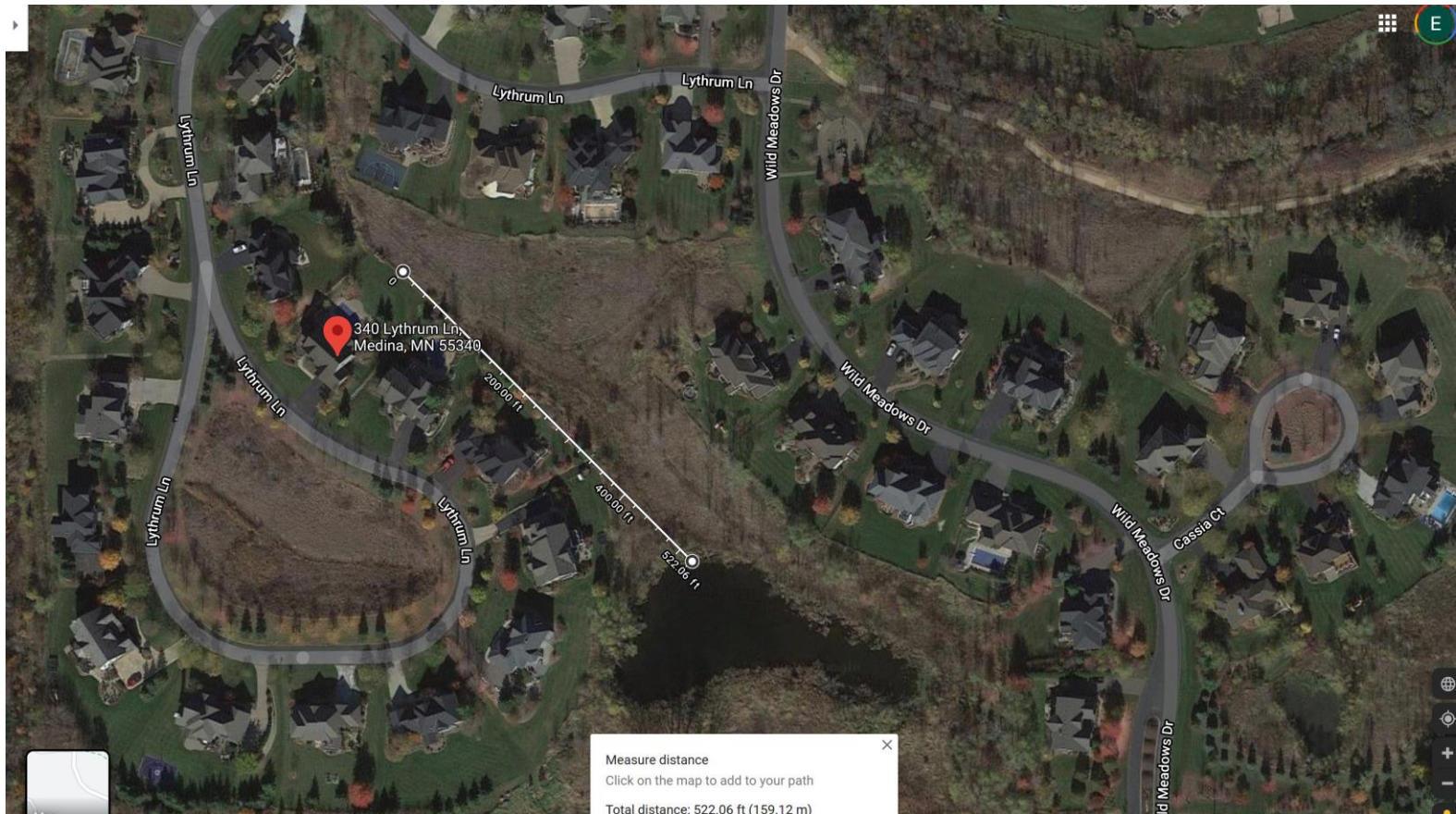
The area in purple is approximately 6.75 acres.



A significant portion of the area was disturbed in 2020 by heavy equipment to install a rock trench from a residence directly into the pond. It has also been neglected for many years and has been overrun by volunteer trees and invasive plant species. It will need to be entirely replanted after tree removal, soil amendments, and invasive species control.



340 Wild Meadows Drive Prairie Wetland Stormwater MS4 Pond.
This area was intended to be native grass and wildflower habitat and has been recently destroyed by the installation of the trench.



Sod was dumped in the middle of the planting creating dead areas.

Ecological Community Innovations

Its time for Wild Meadows to utilize this experience and this opportunity to turn this into a way forward for everyone to come together and one on the most important part of a sustainable part of sustainable life. Clean Water

Wild Meadows HOA needs to have an Independent Ecologist to educate and provide guidance and MS4 Stormwater Ponds is significant part of our community. It would be a terrific part of our community if we could Co-op this and turn all of the City of Medina's MS4 Ponds into MS4 Clean Water Ponds and lead the entire state of Minnesota.

We should be known for having the cleanest water in the state what could be better. We have a relationship with the top Stormwater Pond Ecologist in the State of Minnesota and he can help All of us begin this today. If you want to please contact Dusty Finke and he will contact me.

IMPROVING WATER, WILDLIFE, AND COMMUNITY HEALTH

INTEGRITY OF ASSET VALUE PRESERVATION

ROBERT BELZER

RESIDENTS ARE UNAWARE OF THE LOCAL IMPACTS OF LAND USE AND MANAGEMENT DECISIONS

ACCESS TO INFORMATION

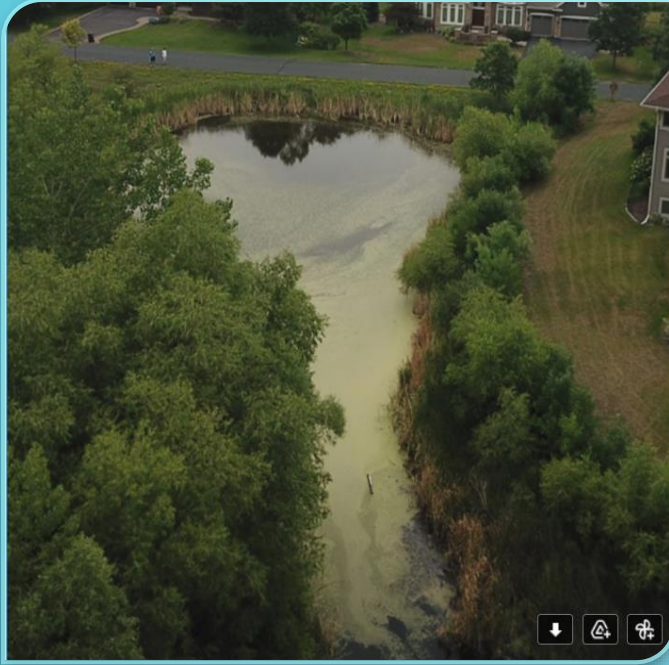


EDUCATION & INTEREST

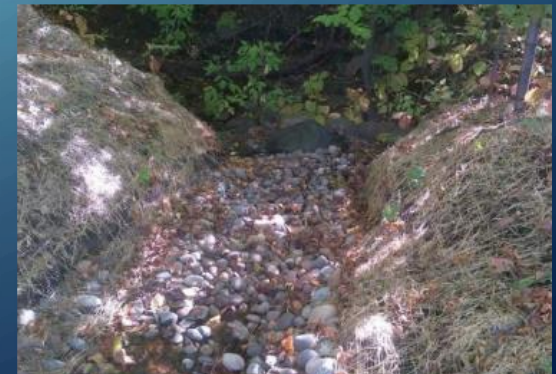




, **reduces anger, fear, and**
re to nature not only makes you
feel better emotionally, it contributes to your physical wellbeing, reducing blood
pressure, heart rate, muscle tension, and the production of stress hormones.”
<https://www.takingcharge.csh.umn.edu/how-does-nature-impact-our-wellbeing>



LOCAL DECISION MAKING HAS RESULTED IN HABITAT DECLINES AND
REDUCED WATER PROTECTION



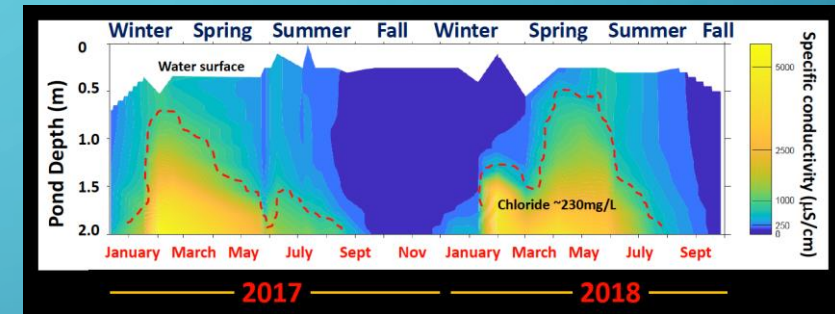
ROAD SALT AND STORMWATER PONDS DON'T MIX

Chloride impacts

Snow melt adds chloride to stormwater ponds in the spring and late winter, and the chloride can stay in the ponds for months—longer than Finlay expected. Because the salty snowmelt entering these ponds is heavier than pure water, the salt sinks to the bottom, forming a salty layer at the bottom of the ponds, with fresher water on top.

Chloride pollution has three main impacts on stormwater ponds:

- Chloride toxicity:** Finlay said that the levels of chloride in many of these ponds is “way above the standard for aquatic life.” In addition, there is some evidence that warmer summer temperatures enhance the toxicity of chloride.
- Heavy metals:** Salt also acts as an extractant, or mobilizer, for metals bound in the sediment at the bottom of stormwater ponds. High levels of salt can increase the concentrations of toxic heavy metals in these ponds.
- Mixing:** Stormwater pond waters are supposed to mix well, but road salt impairs this mixing. Ideally, these ponds would be mixing often to ensure oxygen reaches the sediments. “They’re mixing very, very infrequently,” Finlay explained. This lack of mixing means that there are very low levels of dissolved oxygen in the bottom waters of the water profile, which is bad for animal and plant life.



SOLUTION

LANDOWNER AWARENESS OF LAND USE AND MANAGEMENT DECISION MAKING

- Enhanced educational opportunities for water-wise property management options
- Better outreach regarding local government decision making, including potential impacts of land use decisions, to allow for increased participation in the local water management decision making process
- Increased monitoring regarding the use of pesticides and other potentially harmful activities that occur in proximity to our waters

PROVIDE OPPORTUNITIES TO CONNECT CHILDREN WITH THE NATURAL WORLD

- Incorporate water management and wildlife habitat sites and activities on school property
- Increase the presence of 'wild' areas within the community landscape to allow children directly observe natural processes
- Create opportunities, through partnerships with the appropriate organizations, to facilitate youth engagement with the 'wild' world

Community Environmental Education

Supplemental documents 2 page 17



Background: In “green” communities, one of the primary issues is whether local residents, over the long term, will understand and take local action to conserve natural resources as originally intended by the developer. Decisions made by homeowners ultimately determine whether a community functions as a “green” community. For example, people determine which light bulbs to purchase, what types of vegetation to plant (e.g., exotics vs. natives), how much water to use, and whether to ameliorate their yards for wildlife.

Summary of Program: We have developed an environmental education program that will engage the homeowners in understanding and implementing natural resource conservation strategies. The program contains three elements:



1. Interpretive Kiosks: Highly visible interpretive kiosks are placed in a trail system or public areas where people traffic is high. Each of the kiosks contains informative displays that discuss a particular topic, such as water, energy, and wildlife. Kiosks are dynamic and different informative panels can be easily changed.

2. Web Site: A Web site is constructed (in association with the kiosks) that will give detailed environmental information and management strategies pertinent to a community.

3. Brochure: A brochure is given to each new homeowner. This brochure will highlight local natural resource issues and invite homeowners to explore the kiosks in their neighborhood and visit the Web site.

Program Details: Currently, we are implementing this residential environmental education program in several “green” communities in Central Florida. For the kiosks, full-color exterior graphic panels are placed into each kiosk. To date, we have 28 full-color panels that cover seven themes: Water, Energy, Wildlife, Environmental Landscaping, Insects/Pollinators, Lakes, and Natural/Human History. The Web site generally follows the topic themes. The front page is designed as an entry port for a community and is designed to be compatible, in terms of look and feel, with the overall design and flavor of the community. From there, residents can link to various environmental topics and learn more about local resources, issues, and conservation strategies. The brochure functions as a springboard for people to explore the kiosks and Web site. This brochure generally has four panels (front and back) and covers the above topic themes.

Implementation: Overall, a community can implement any combination of kiosks, panels, Web site, and brochure. For example, a community may decide to build two kiosks and use all 28 panels for these two kiosks, Web site, and brochure in combination but in certain instances, a community may want to use the kiosks alone.

Estimated Costs: Approximate materials and construction costs for the signs and panels:

1. 24" x 36" all aluminum Graphic Display Units: \$1,300.00 each

2. 24" x 36" single wood pedestal & aluminum frame Graphic Display Units: \$925.00 each

3. Printing Costs for Full-Color Exterior Graphics (panels): \$80.00 each

4. Printing Costs for 1000 Full-Color Brochures: \$800.00

5. Production Costs: Production costs are variable depending on the topics, the community, and the amount of site-specific information that is needed for the graphic displays or the Web site.

LOCAL DECISION MAKING HAS RESULTED IN HABITAT DECLINES AND REDUCED WATER PROTECTION

- Local government organizations should ensure that water quality is a factor in land use decisions and changes
- Efforts should be made to restore streams, rivers, and other water channels to a naturalized condition with benefits for water quality and wildlife habitat in conjunction with landowners and homeowner groups, opportunities for restoration should be identified and work begun in a systematic process.

POTENTIAL OUTCOMES

Property asset value and integrity is maintained or increased through the protection of natural resources and the reduced potential for harmful outcomes

Children improve their understanding and appreciation of the natural world, which will result in reduced stressed and increased satisfaction

Community members are more engaged with the natural resource management of their communities, resulting in a better decision making process.

WE ARE NOT IN THIS ALONE

Landowners

Homeowners
Associations

Schools

Local
Government

State
Government

A decorative graphic on the left side of the slide, consisting of a network of light blue lines and small circles, resembling a circuit board or a stylized tree structure.

THANK YOU
FOR
YOUR TIME

CITY OF MEDINA
PLANNING COMMISSION
DRAFT Meeting Minutes
Tuesday January 12, 2021

1. **Call to Order:** Acting Chairperson Nielsen called the meeting to order at 7:00 p.m.

Present: Planning Commissioners Peter Galzki, Ron Grajczyk, Beth Nielsen, Cindy Piper, Justin Popp, Braden Rhem, and Timothy Sedabres.

Absent: Planning Commissioner Theresa Couri.

Also Present: City Planning Director Dusty Finke, City Planner Deb Dion, and City Councilmember Robin Reid.

2. **Introduction of Planning Commissioners**

The members of the Commission introduced themselves.

3. **Election of 2021 Planning Commission Officers**

Finke ran the elections for Chair and Vice Chair for 2021. He opened nominations for the position of Chair.

Piper nominated Nielsen for the position of Chair.

Finke asked for any other nominations, no other nominations were made.

A roll call vote was performed:

Galzki	aye
Grajczyk	aye
Popp	aye
Rhem	aye
Sedabres	aye
Piper	aye
Nielsen	aye

The motion carried and Beth Nielsen was unanimously appointed as Chairperson for 2021. Piper nominated Nielsen for the position of Chair.

Finke opened the nominations for the position of Vice Chair.

Nielsen nominated Galzki for Vice Chairperson.

Finke asked for any other nominations, no other nominations were made.

A roll call vote was performed:

Nielsen	aye
Grajczyk	aye

Piper aye
Popp aye
Rhem aye
Sedabres aye
Galzki aye

The motion carried and Peter Galzki was unanimously appointed as Vice Chairperson for 2021.

Galzki commented that he looks forward to continuing to serve the Commission in this new role.

4. **Update from City Council Proceedings**

Reid reported that the Council met the previous week and provided an overall update on the actions taken at the meeting including swearing in of new members. She stated that the Council approved of the Preliminary Plat for Weston Woods as recommended by the Planning Commission with some additional conditions related to architectural design and screening. She stated that the Council also considered the improvement plan for Arrowhead Drive and Highway 55 and authorized staff to commence design work on the project based on the scope of services prepared by WSB.

5. **Planning Department Report**

Finke provided an update.

6. **Public Hearing – Lothar and Mona Krinke – 2905 Willowood Farm Road – Conditional Use Permit for Construction of Approximately 12,600 Square Foot Addition to Existing Barn for Indoor Riding Arena**

Finke presented a request for the Conditional Use Permit (CUP) for the property located at 2905 Willowood Farm Road to construct a 12,600 square foot addition to the existing barn on the property. He stated that accessory structures in excess of 5,000 are allowed on properties over five acres in size through a CUP. He reviewed the other structures that exist on the property which is zoned rural residential. He displayed the site plan with the proposed arena on the east side of the existing barn and reviewed details on the topography of the site. He displayed the proposed elevation of the addition and noted that the proposed construction would meet all the dimensional standards of the zoning district. He stated that the CUP has a list of standards that apply to all CUP requests along with additional architectural and stormwater standards. He noted that the proposed addition would be taller than the existing barn, which provide a variation in the façade of the structure. He stated that staff would recommend an additional color or accent material on the addition. He stated that the applicant has shown a filtration basin/rain garden in order to provide the stormwater treatment and noted that staff would like additional details on that improvement to show the necessary treatment. He stated that staff recommends approval contingent upon the conditions noted in the staff report.

Popp referenced the general CUP standard related to traffic, where staff recommends that this be used for private use and not commercial use. He asked for input from staff noting that a nearby arena has commercial use and asked if this would then be inconsistent.

Finke replied that within the rural residential zoning district the City does not allow commercial horse facilities, although there are commercial horse facilities throughout the

City that are non-conforming and have been grandfathered in. He stated that the current regulations would not allow for a new commercial horse facility within this zoning district. He stated that commercial horse facilities must be located on arterial roadways because of the traffic that would come from that type of use.

Sedabres asked for input on the elevation change from Willow to the property and whether there would be visual impact from Willow.

Finke replied that the east end of the structure would be visible from Willow, even though it is setback from the road quite a ways. He commented that there is vegetation immediately north of the addition which would make it less visible from that direction.

Galzki asked for details on one of the elevation markers and whether that is shown incorrectly.

Finke replied that there is a steep slope from Willow Drive to the structure and provided additional details, noting that the structure sits quite a bit lower from Willow Drive. He stated that the elevation of Willowood Farm Road is more accurately aligned with the floor of the structure.

Eric Finch, contractor for the applicant, stated that he will follow up to correct any incorrect elevations shown.

Nielsen opened the public hearing at 7:31 p.m.

Finke stated that staff received two email comments: one from the property owner to the north of this site and one from Skyrock Farm. He stated that the emails were distributed to the Commission prior to the meeting and both parties were generally in favor of the request as proposed.

Nielsen closed the public hearing at 7:33 p.m.

Galzki commented that in reviewing the information this appears to be a great project and is fitting for the area and surrounding uses. He stated that it appears that the setback requirements and general CUP standards would be met through this request. He stated that in general the community supports this type of development and it adds to the rural character of the community.

Grajczyk agreed that this looks to be a good project and fitting to the community.

Piper stated that she would be recusing herself from this discussion as she sold this property to the applicant.

Popp commented that that he supports the conditions proposed by staff related to architectural design. He stated that this seems to be a basic design and believed that the existing barn has more architectural interest. He commented that this could be a long wall of white metal and suggested that additional trim be added. He referenced the landscaping and stated that he did not see anything proposed. He stated that he would like to see natural landscaping such as trees or rocks to offset this large manmade structure.

Rhem stated that he echoed the comments of support as this project meets the requirements and also supports the additional recommendations of staff.

Sedabres stated that he also supports the request subject to the conditions recommended by staff.

Nielsen stated that she also supports the project and agrees it would be nice to have an additional design element to break up the long wall.

Motion by Sedabres, seconded by Grajczyk, to recommend approval of the Conditional Use Permit subject to the conditions noted in the staff report.

A roll call vote was performed:

Galzki	aye
Grajczyk	aye
Piper	abstain
Popp	aye
Rhem	aye
Sedabres	aye
Nielsen	aye

Motion carried.

Finke commented that the intent is to present this to the City Council at its February 2, 2021 meeting.

7. **Public Comments on Items not on the Agenda**

No comments made.

8. **Public Hearing – Ordinance Amendment – Chapter 8 of the City Code – Pertaining to Stormwater Management Requirements**

Finke stated that background information on the ordinance was provided in the staff report that goes beyond the specific changes and provided a brief overview on overall stormwater management and requirements as well as information from the City's surface water management plan. He stated that the City has a stormwater design manual that includes the technical requirements and provided some examples of that detailed information related to rate control and volume control. He stated that volume control is often difficult in Medina because of the tight clay soils and therefore alternatives are often used such as stormwater reuse.

Nielsen asked why the City is reviewing this at this time.

Finke replied that this discussion arose as a result of a number of homes that were constructed on rural lots over the past few years. He stated that the thought in creating the exemption was where there was an overall low percentage of hardcover and more green space, the stormwater requirements should not be triggered. He stated that what the City has seen, especially on rural properties, is that the driveway that provides access to a home often adds so much hardcover that most new homes that are setback from the roadway trigger the stormwater requirements. He stated that might be a sign that the exemption may not be operating quite as anticipated. He stated that the hardcover from the driveway may drain over a wider area and perhaps should not cover the same things that a contiguous area of hardcover would. He stated that they have received complaints from homeowners because of

the difficulties in obtaining the necessary permit and the additional costs in designing and implementing the stormwater treatment for the construction of a home.

Grajczyk asked if a builder/developer would still fall under the MPCA stormwater prevention plan, outside of the City requirements.

Finke confirmed that the construction site related to pollution prevention is a separate code.

Sedabres asked the standard square footage of driveways for rural residential lots.

Finke stated that it would be common to have a 16-to-18-foot driveway. He stated that on a ten-acre lot a home could perhaps be setback 400 feet, which would result in 7,200 square feet of hardcover just to reach the building pad for the home. He stated that if there was a longer narrower lot, you could press up to the hardcover threshold without even building a structure.

Finke provided details on the proposed changes for discussion. He began with the threshold for stormwater improvements and reviewed the City's requirement that triggers stormwater treatment more stringently than State Code or the watershed. He stated that one option would be to remove that more stringent requirement and not require stormwater management in those cases. He noted that is not the intention of staff but noted that the Commission can discuss that. He reviewed the options that could be considered to resolve the issue that has been arising on rural residential lots which included raising the threshold for exemptions on larger lots, the driveway could be exempted from the calculation, or create a different exemption level for larger residential lots. He stated that there would still be different triggers that would require stormwater management. He noted that if the Commission removes this requirement for management on low percentage of hardcover lots (rural lots), staff would recommend including language that would allow the City Engineer to require stormwater management in more sensitive areas. He used the example of a rural lot that drains and discharges into a ravine. He stated that another discussion item would pertain to redevelopment, noting that the ordinance requires improvement of a site if the property is demolished and reconstructed but does not require full compliance. He stated that updates for the MS4 permit require full compliance in that situation and therefore that change will need to be made in order to be in compliance with the permit. He stated that if technical standards cannot be met within the stormwater design guide the City Engineer does not currently have the authority to provide flexibility. He stated that staff believes that it is important for the City Engineer to be able to provide flexibility as water management requirements are constantly evolving and new products come out on the market which may not be included in the manual. He stated that the additional language would allow the City Engineer to approve new technology based on their knowledge and experience. He stated that there are various other text amendments proposed as described in the report. He stated that staff is looking for discussion on the threshold for provision of stormwater management, specifically the rural residential lots.

Galzki asked if there has been review of other municipalities and their thresholds. He asked if there has been discussion on using a percentage for that threshold, similar to the table that was created for shed sizes on residential lots.

Finke stated that the City has the 5,000 square foot threshold but then adds to that an exemption which is more stringent than what other communities and the watershed use. He stated that the 20 percent hardcover trigger is consistent with the watershed and its current rules, noting that the watershed has an exemption for under 20 percent.

Nielsen referenced the suggestion that driveway be exempted from the calculation and noted that some homes have a large pad near the home for parking and asked whether that would still be considered part of the driveway.

Finke stated that he does have draft language that would define driveway. He stated that staff had suggested a maximum width for the driveway along with adjacent hardcover which would mean that a parking pad would not be considered part of the driveway.

Nielsen opened the public hearing at 8:13 p.m.

Sam Calvert, attorney representing a property owner in Wild Meadows, stated that his client is concerned that residential lots are not defined in this ordinance. He noted that Wild Meadows has several outlots that are supposed to remain natural areas and recently there has been some construction in those outlots that is concerning. He stated that perhaps there could be clarifying language related to residential lots and outlots to ensure that these changes do not impact the protection of the outlots.

Finke asked if the speaker was suggesting that if a linear improvement were to be exempted, a trail within a broader common area should not be allowed the exemption.

Mr. Calvert confirmed that is his position. He stated that there have been a number of changes within the outlots in Wild Meadows that impact drainage and stormwater. He stated that they would not want the ordinance to permit these types of changes because it is on "residential property". He suggested that more definition be provided as to what a residential property is.

Finke commented that he understands what is being described by the speaker and believed that there are a couple factors that would come into that situation. He stated that whether a project may be approved that changes drainage patterns would be separate from the considerations being discussed tonight. He did not believe that the situation described by Mr. Calvert would fall under the stormwater management threshold exemption.

Todd Evland stated that he and his wife sent an email prior to the meeting. He stated that they are currently constructing a home and are an example in which the driveway has triggered stormwater mitigation at a cost of over \$1,200. He stated that they are interested and thankful that the Commission is taking the time to consider and discuss this topic.

John Quinlivan, Gordon James Construction, stated that the Evlands are their clients and asked if staff has an opinion on the different remedies presented and what would make the most sense. He stated that it would seem the 20 percent threshold would be an easy measure.

Finke stated that staff is recommending a change to the ordinance. He noted that there are some things that would need to be confirmed, specially whether there ought to be a hardcover threshold in general (5,000 square feet), and if that is a good requirement would it then make sense to have an exemption for lots with a low percentage of hardcover (20 percent or less). He commented that staff believes that would make sense and the question would then be whether any lot under 20 percent would be exempted, with additional language that would allow additional requirements if the drainage flows to a sensitive area. He stated that if there is some amount of hardcover that the Commission would like to trigger improvements on for those type of lots, staff would then suggest exempting the driveway as that type of runoff is different than the runoff from a building. He stated that if one acre of hardcover were being added, that would trigger stormwater requirements. He stated that it would make sense to requirement stormwater management on certain amounts of contiguous hardcover. He stated

that once the driveway is subtracted it would make sense to requirement some amount of treatment for large amounts of hardcover.

Nielsen closed the public hearing at 8:30 p.m.

Piper commented that this issue is quite complicated, and her instinct would be to support the recommendation of staff.

Popp agreed that this is a complicated issue and noted that he would prefer to reserve comments until some of the other Commissioners have made comment.

Finke stated that he does not suspect there would be interest in removing the 5,000 square foot threshold but suggested that discussion begin with that item.

Grajczyk commented that the MS4 permit regulations continue to grow. He stated that there are also multiple watersheds within Medina which each have their own regulations to protect water. He stated that it is nice to have the 5,000 square foot threshold as a trigger but only in certain situations where there would be smaller lots and not necessarily on the larger rural lots. He stated that it could also apply different to residents with long driveways. He stated that he likes the idea of the 20 percent threshold and hardcover requirement laid out in the second recommendation that would also provide an exemption for larger driveways. He believed that both the first and second recommendation could be utilized depending upon the lot size. He stated that driveway sizes and locations could perhaps be addressed differently and noted that he agrees with the recommendation of staff to maintain the hardcover threshold on larger lots with lower amounts of hardcover. He referenced item four related to exemptions for under 20 percent of hardcover and agreed with the staff recommendation that rural lots with long driveways should have an exemption for the driveway. He commented that perhaps driveways be reviewed differently when adjacent to impaired waters to ensure a buffer could be incorporated to protect the waters.

Nielsen agreed that the language should be added relating to sensitive areas.

Rhem commented that he is less supportive of a general driveway exemption and would like to see that incorporated into the overall percentage of hardcover or to have that fall under item four.

Mr. Evland commented that his hardcover with the driveway is 6.6 percent.

Nielsen agreed that she does not like a straight exemption for the driveway.

Sedabres commented that he believes there should be flexibility to allow these projects to move forward but agreed that it could become convoluted when exempting a driveway. He asked how often this is triggered currently.

Finke replied that on rural lots over seven acres in size, based on recent experience, more often than not the ordinance as it stands is triggered. He commented that if the home is closer to the street and does not have accessory improvements, such as outbuildings or sport courts, he could be conceivable that would not trigger the improvement. He stated that if a long driveway or pool or tennis court is included, the improvement would be triggered.

Sedabres asked if the 20 percent threshold could be too expansive on significantly larger lots or whether that would be covered under the broader MS4 regulations.

Finke provided an examples of different square footage homes and accessory buildings on a one-acre lot and how that would compare to the 20 percent threshold. He stated that on larger lots 20 percent would be a lot of hardcover, noting that on a lot over five acres the 20 percent threshold would almost never be triggered except for the case where drainage flows into a sensitive area. He stated that the question before the Commission would be whether development on a large rural residential lot should essentially be exempted from the requirement for stormwater improvement. He noted that the answer to that question would help to guide the discussion related to thresholds.

Piper asked if the Commission is voting on this tonight or whether the discussion could be tabled to consider a different approach.

Finke commented that this issue is not time sensitive and could be tabled. He stated that there are some pending projects that this would affect, but that would be the decision of those applicants. He noted that Piper suggests providing more real-world examples in order to provide better context which could be provided.

Sedabres commented that the percentage generally makes sense on smaller lots. He asked if there would be any way to delineate a different percentage for lots of five or ten acre lots, suggesting perhaps 10 percent for those lots.

Finke confirmed that could be presented as an option. He stated that the difficulty with that is that the hardcover on a site is never centered in the middle of the property with the chance to disburse equally, therefore not all percentages are equal. He stated that there are situations where percentages would not be the best tool.

Nielsen stated that she is not opposed to tabling this as there is a lot to digest.

Finke stated that if it made sense to table this, staff would like direction on what would be helpful in the next presentation.

Galzki commented that he does have a background in land development. He stated that the biggest takeaway is that they want to avoid being more stringent than the State and watershed districts which already have stringent and applicable standards for projects. He stated that larger development outside of individual home construction would trigger stormwater regulations by the State and watershed. He commented that anything that disturbs more than once acre will trigger the stormwater requirements, therefore this issue comes down to rural residential home construction. He commented that rural residential home construction is currently triggering stormwater requirements where it is not needed. He stated that as proposed it would leave it to City staff and engineering to review grading and plans to determine if stormwater management should be required. He stated that this would also allow for staff to rely on the State and watershed rules to handle that element rather than placing additional thresholds that discourage certain types of development.

Finke commented that the context from Galzki is helpful and correct. He stated that large scale developments, any residential or commercial development that disturbs more than one acre, will continue to trigger the stormwater regulations, and will have to provide stormwater management. He commented that these exemptions would therefore mainly apply to rural residential lots and perhaps preexisting commercial settings that may wish to add an addition and were constructed prior to the stringent stormwater requirements.

Galzki commented that it would seem that the Commission may want more time and guidance in order to make more informed decisions as this is a lot of information that takes

time to digest. He stated that members of the Commission could reach out to staff with questions prior to the next meeting in order to clarify some of the content and be prepared for the next review.

Grajczyk stated that perhaps this be broken up into two parts, the 20 percent threshold and trigger items and then the potential amendments for administrative flexibility.

Piper agreed that this should be tabled and considered in two segments. She stated that she would like visual scenarios as well.

Popp confirmed that he would be comfortable tabling this and would like visual scenarios for context.

Rhem echoed the comments of the previous members.

Sedabres recognized that staff put a lot of time into the proposal and trusts the opinion of staff. He stated that the Commission cannot review every scenario and he would be comfortable following the recommendation of staff.

Nielsen agreed that she could go either way. She recognized that the Commission wants to try to understand everything and this is a lot of information to digest. She asked if staff would be comfortable tabling this and breaking it into two parts.

Finke stated that this is not time sensitive but there are some interested property owners. He agreed that there are some scenarios that could be helpful but noted that it would be impossible to provide every scenario because each proposal is unique.

Nielsen reopened the public hearing at 9:02 p.m.

John Quinlivan asked if there could be guidance as to what direction they should take as they are under seven percent hardcover and could fall under an exemption. He commented that construction has begun and estimated that could be complete in May.

Nielsen closed the public hearing at 9:04 p.m.

Nielsen asked if the subject property would be exempt under the 20 percent threshold.

Finke stated that the property may be exempt depending upon the position the Commission takes, noting that three of the recommended options could result in the property not having to provide stormwater management. He stated that perhaps that property could be used as an example for the Commission at the next meeting since it has been discussed tonight. He commented that it seems that any direction the Commission may take could result in stormwater management not being required for that property.

Nielsen stated that she agrees with that statement and hopes that this could be resolved before construction would be complete.

Nielsen noted that this discussion will be tabled and revisited at the next meeting.

9. **Approval of the December 8, 2020 Draft Planning Commission Meeting Minutes.**

Motion by Piper, seconded by Galzki, to approve the December 8, 2020, Planning Commission minutes with the noted corrections.

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A roll call vote was performed:

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Galzki aye

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Grajczyk aye

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Piper aye

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Popp aye

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Rhem aye

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Sedabres abstain

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Nielsen aye

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Motion carried.

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10. **Council Meeting Schedule**

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Finke advised that the Council will be meeting the following Tuesday and Nielsen volunteered to attend in representation of the Commission.

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11. **Adjourn**

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Motion by Galzki, seconded by Grajczyk, to adjourn the meeting at 9:12 p.m. Motion carried unanimously.

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Memorandum

To: Steve Scherer, Public Works Director
Dusty Finke, Planning Director

From: Joey Abramson, PE
Earth Evans, PE
Jim Stremel, PE, City Engineer

Date: June 16, 2021

Re: Wild Meadows Drainage Assessment – Medina, MN
WSB Project No. 017741-000

The Wild Meadows development was constructed in the early 2000's. At that time, the governing agency stormwater management requirements allowed the stormwater management design to incorporate sequences ("Treatment Train") of Best Management Practices (BMPs) to provide Total Phosphorus (TP) and Total Suspended Solids (TSS) removal to meet the water quality volume. With that in mind, a NURP level treatment criterion (60% TP and 90% TSS removal) was likely required. The general sequence of BMPs for the development routed runoff from disconnected impervious that included rural section roads and house/driveway areas to sedimentation ponds. Conveyance to and from these ponds was provided using vegetated regional drainage swales.

There are conservation easements located within the Wild Meadows development. These easements are granted to the Minnesota (MN) Land Trust. We recommend that the Homeowners Association coordinates with the MN Land Trust on all further considerations of changes to the site as well as any proposed maintenance activity.

The City and Land Trust were notified that modifications to the treatment system swales were made without proper City review and permitting. Generally, the modifications that were made included removing vegetation and sediment from two drainage swales and replacing the swale bottoms with river rock to provide more consistent flow conveyance in response to flooding issues observed in the swales. Additionally, to address overtopping and erosion issues over a stretch of gravel trail, portions of a trail section were modified and culverts either added or replaced to improve flow conveyance.

The City of Medina authorized WSB to perform a high-level drainage analysis of the existing conditions for the three primary areas of concern and how the constructed modifications may have affected the overall treatment ability or capacity of the stormwater management systems. As a part of the analysis, WSB was asked to perform the following tasks:

1. Collect background information including storm sewer sizes/elevations, grading plans, soils information, groundwater information, watershed district submittals/permit information, and other relevant information readily available.
2. Attend an onsite meeting with City staff, HOA representatives, and a representative from the land trust that oversees the conservation areas.
3. Provide an analysis of the three primary areas of concern.

WSB visited the Wild Meadows development on Friday, April 16, 2021 to assess drainage concerns and modifications made by the development's Homeowners Association (HOA). In

attendance at this meeting were representatives from the HOA, MN Land Trust, City of Medina staff, and WSB staff. In this memo, the observations and findings at each of the three primary locations is summarized, the drainage issues observed, field modifications made to address them, how these modifications may have affected the stormwater treatment, and recommendations on next steps to address potential future issues.

See the attached Exhibits A-C for the location of the three primary areas of concern.

Northerly Area (Exhibit A)

Existing Conditions and Background Information

The Northerly Area shown in **Exhibit A** generally consists of the gravel trail located east and north of Sunrise Ct. This trail is comprised of crushed limestone and provides resident access to nature areas north and east of the Wild Meadows development. The original (as-built) condition was a woodchip trail with periodic CMP culverts conveying offsite runoff under the trail. Over the course of several years, and particularly over the last few years, runoff from the west would flow over the trail which lead to multiple culvert washouts and trail erosion.

The primary contributing drainage to the trail area is the upstream outlet/culvert from the pond. This outlet pipe is perched above the downstream grade (appears to stick out of the ground) and currently causing erosion in and around the outfall.

Observed System Modifications & Impacts

WSB observed and learned of the following modifications/repairs made to the system. The HOA dug small, approximately six-inch wide ditches along the upstream sides of the trail to reduce offsite runoff from flowing over trail and conveyed this runoff to existing culverts. The HOA also replaced and added several new culverts.

These repairs have appeared to reduce the occurrence and amount of runoff flowing onto and over the trail, but increased ditch erosion has also occurred. The added culverts have appeared to reduce occurrence of overtopping, though some of the new and/or existing culverts appear to be undermined; some culverts may also have seepage issues.

Given the elevation difference of approximately 20 feet from the wetland area up to the pond, it is not reasonable to consider the trail work has had any impact on the flow conveyance from the perched pond or nearby yards.

The modifications in this area are not considered to have had a consequential effect on the stormwater treatment train for this area. The changes primarily affected flow conveyance and not water quality.

Recommendations & Next Steps

Based on our observations during the site visit and engineering judgement given the readily available information, we recommend the HOA or its consultant consider these corrections/next-steps:

- Reinstall culverts with the undermining issues utilizing using proper bedding and water-tight seepage prevention measures.
- At the perched outlet pipe location, survey this area and evaluate alternatives for addressing the perched outlet pipe (adding fill, lowering pipe, adding a structure,

extending the pipe etc.) and install stabilization measures (i.e. rip-rap, permanent turf reinforcing mat, etc.) in and around the outlet area.

- As a long term improvement, consider relocating the trail closer to the outlet pipe area (upstream side of the meadow) to avoid the runoff traveling over the trail. This would require a more significant improvement in design and permitting if pursued; however, it would be a better long term solution.

Southeasterly Area (Exhibit B)

Existing Conditions and Background Information

The Southeasterly Area shown in **Exhibit B** generally consists of a drainage swale between 125 and 135 Prairie Creek Rd and flowing behind lots 135 and 145 Prairie Creek Rd. This drainage swale conveys direct runoff from approximately three lots as well as inflow from an upstream pond that receives runoff from approximately 17 lots and associated roads. The original (as-built) condition was a vegetated drainage swale.

Over the last few years, vegetation, including dense cattails, established themselves within the swale causing standing water and restricting flow within the swale. Runoff had encroached into backyards and caused saturated conditions. During previous large storm events, rear yard flooding occurred and extended up to and above the low floor elevation of one home threatening to encroach into the home.

Observed System Modifications & Impacts

WSB observed and learned of the following modifications/repairs made to the system. To address these issues, the HOA removed vegetation in the swale, widened and regraded, and added 1-2" diameter river rock along swale bottom to reduce vegetation growth and promote flow. Based on HOA knowledge, this repair has reduced the occurrence of standing water and back-ups in the swale.

With respect to water quality treatment, the removal of vegetation slightly reduces the phosphorus removal but given the length and geometry of the swale, it is not expected that the removal of the vegetation will have a significant direct impact on water quality. This conclusion is supported by a very high level assessment of removal efficiencies of swale using the MIDS Calculator. Changing the Manning's roughness value of the swale from vegetation (0.035) to the equivalent of small rocks (~0.02) does not have a sizeable impact on TP or TSS removals. Additionally, most of the flow through this swale comes from the upstream sedimentation pond, which provides the majority of TP and TSS removal.

The changes to the swale did however appear to have resulted in faster velocities in the channel and may have contributed to erosion along downstream side slopes. In some locations the river rock has been bypassed by the flow channel and has further contributed to erosion and sediment loading downstream.

Recommendations & Next Steps

Based on our observations during the site visit and engineering judgement given the readily available information, we recommend the HOA or its consultant consider these corrections/next-steps:

- Repair the downstream portion of the rock swale, where the flow has bypassed the rocks to the side and begun to erode the side slopes. The repair effort should include

regrading to achieve a concave shape with the centerline being at least six inches below the sides.

- Stabilize the eroded side-slopes beyond the end of the rock swale (approximately 30 feet) down the ravine where the slope steepens. Options for protecting the side slopes should consider the lack of sunlight and vegetated understory. Some grading may be required to ensure the flow area is not restricted due to the addition of rip rap or other energy dissipation methods. A few trees may also need to be removed to allow for proper grading of the side slopes.

Southwesterly Area (Exhibit C)

Existing Conditions and Background Information

The Southwesterly Area shown in **Exhibit C** generally consists of a drainage swale located behind lots 340-370 Lythrum Ln, conveying runoff from Lythrum Ln and approximately 6 lots. The original (as-built) condition was a vegetated drainage swale.

Over the last few years, vegetation, including dense cattails, established within the swale causing standing water within the swale. Runoff encroached into backyards and caused saturated conditions.

Observed System Modifications & Impacts

WSB observed and learned of the following modifications/repairs made to the system. To address these issues, the HOA removed vegetation in the swale, widened and regraded, and added 1-2" diameter river rock along swale bottom to reduce vegetation growth and promote flow. Based on HOA knowledge, this repair has reduced the occurrence of standing and back-ups within the swale.

Spoils from the HOA's maintenance operations were placed in a berm on the east side of the swale area. It appeared in some locations that the berm was trapping runoff, potentially concentrating the runoff, and causing some minor erosion and/or limiting plant growth. It also appeared that some of the sediment that was removed from the swale was deposited on the north bank; the ground surface appeared to be saturated in some of these areas.

With respect to water quality treatment, the removal of vegetation slightly reduces the phosphorus removal. Given the length and geometry of the swale, it is not expected that the removal of the vegetation will have a significant direct impact on water quality. This conclusion is supported by a very high level assessment of removal efficiencies of swale using the MIDS Calculator. Changing the Manning's roughness value of the swale from vegetation (0.035) to the equivalent of small rocks (~0.02) does not have a sizeable impact on TP or TSS removals.

Given the geometry and slope of the swale, erosion issues are not anticipated due to slow velocities. Additionally, the downstream waterbody appears to provide sufficient deadpool sedimentation treatment, and the long swale and high amount of disconnected impervious still provide pretreatment.

Recommendations & Next Steps

Based on our observations during the site visit and engineering judgement given the readily available information, we recommend the HOA or its consultant consider these corrections/next-steps:

- Remove the spoil piles/berms created when the rock swale was constructed and return slope to what was likely more of a “sheet flow” condition.
- Vegetate disturbed or other existing bare areas with approved seed mixtures.

Conclusion

This memo constitutes a summary of our high-level observations, analysis, and review of the stormwater management modifications in the three primary areas of the Wild Meadows development described in this report.

We recommend that the HOA hires an engineering consultant to review in more detail the contents of this memo and the overall development to implement corrections, create a long-term maintenance plan, and monitor the drainage areas. Included in the maintenance plan should be recommendations regarding the use of herbicides in and around the drainage areas and their potential impacts to water quality.

We recommend that the Homeowners Association coordinates with the MN Land Trust on all further considerations of changes to the site as well as any proposed maintenance activity. As a general rule, all swales should remain vegetated unless otherwise approved by the City.

The HOA or its consultant should contact the applicable permitting agencies and easement owners, including MCWD, MN DNR, MN Army Corps of Engineers, MN Land Trust, and the City of Medina to coordinate and review the proposed project elements and maintenance plan.

We appreciate that opportunity to provide this assessment and recommendations. Please contact Joey Abramson at 763-270-3469 or jabramson@wsbeng.com with any questions. We would be happy to discuss a time to review our findings in more detail.

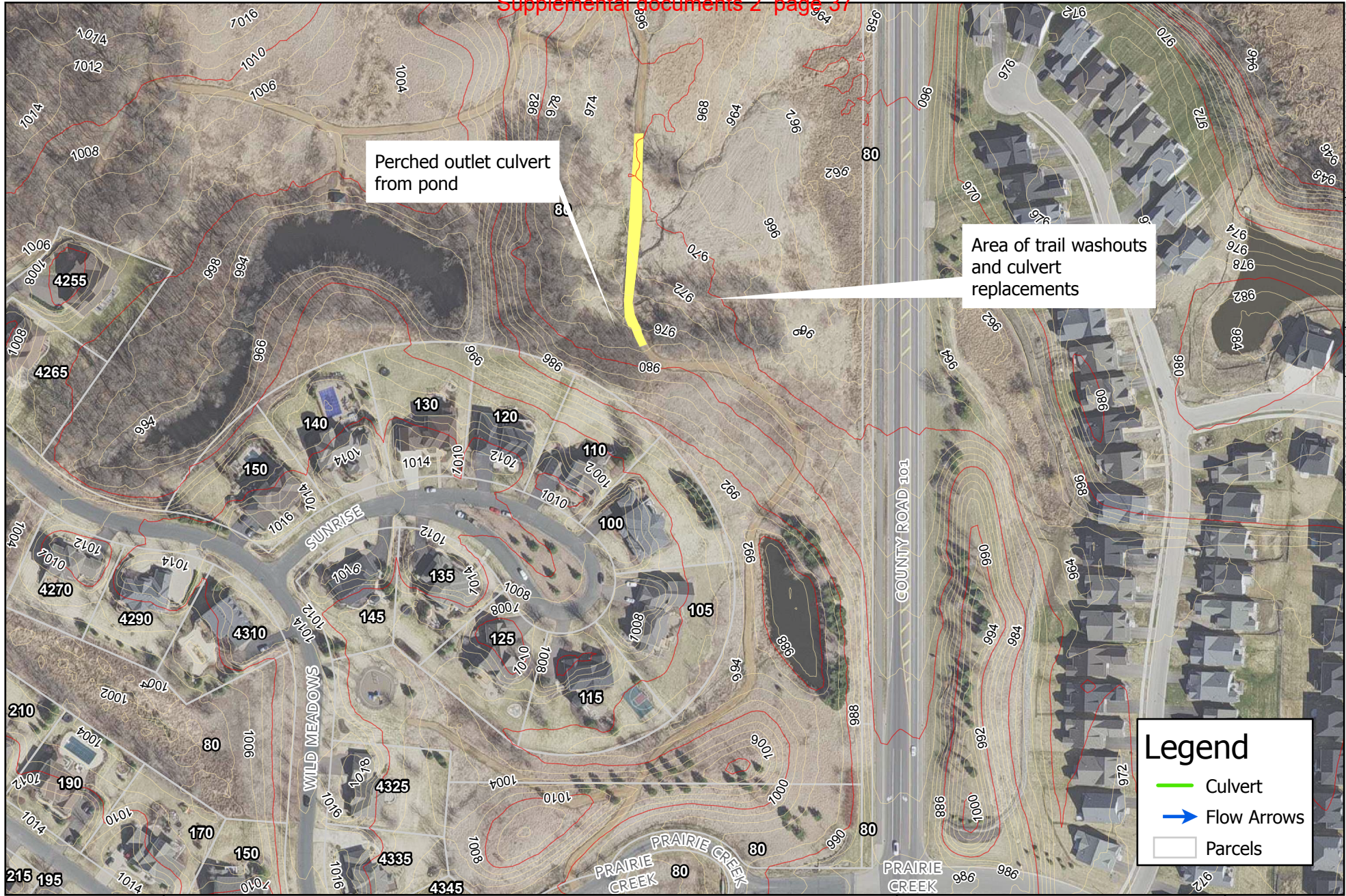
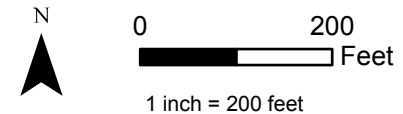


Exhibit A - Northerly Area
Wild Meadows Drainage Review
City of Medina, MN



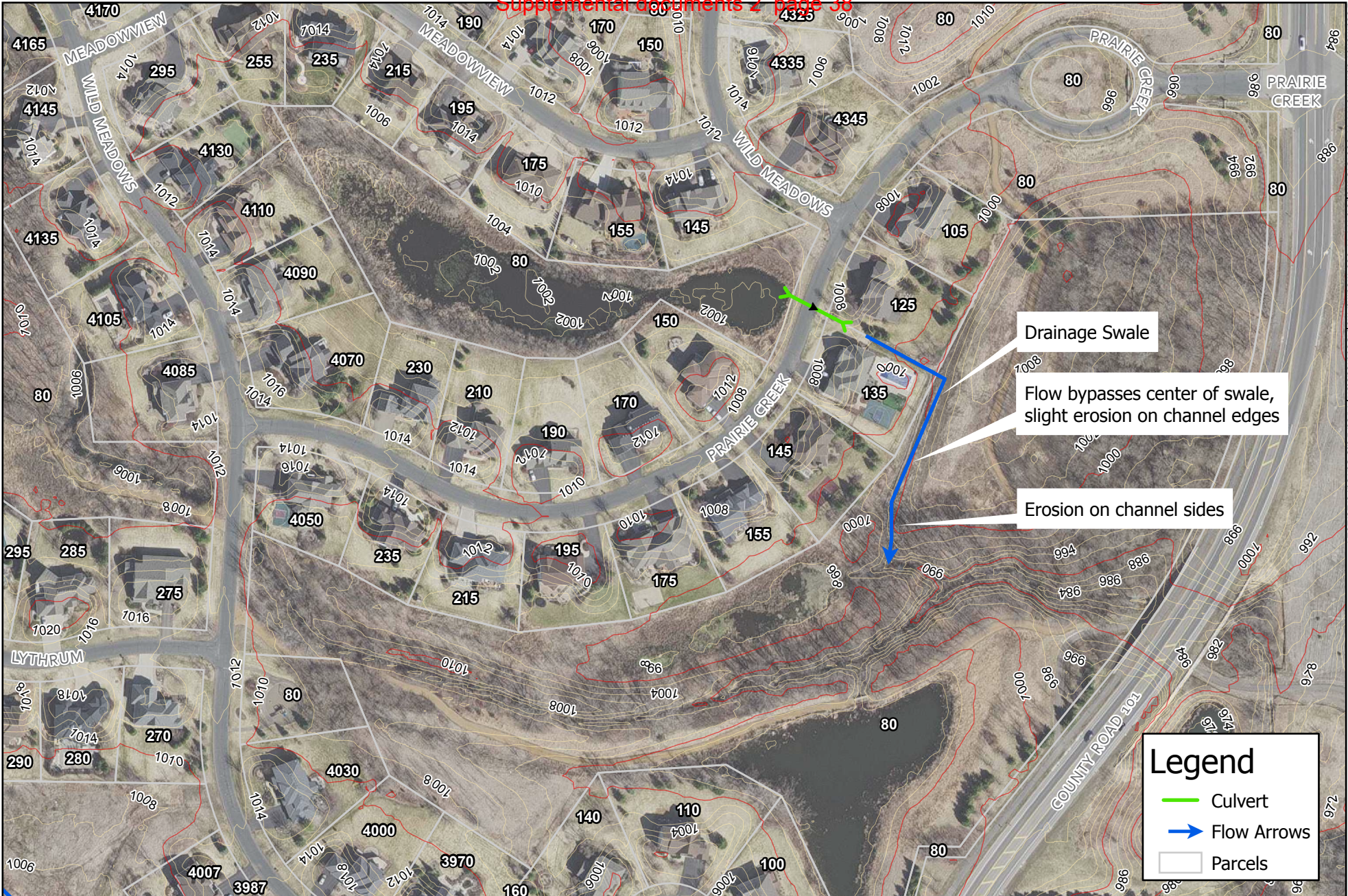


Exhibit B - Southeasterly Area
Wild Meadows Drainage Review
City of Medina, MN

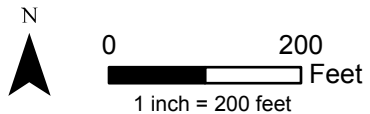




Exhibit C - Southwesterly Area
Wild Meadows Drainage Review
City of Medina, MN

