Stephen Wensman

rom:	Schilling, Andrew	<aschilling@ci.woodbury.mn.us></aschilling@ci.woodbury.mn.us>

Sent: Wednesday, March 30, 2016 1:42 PM

To: John Rask

Cc: Loomis, John; Moore, Matt; Jenni Thompson; Stephen Wensman

Subject: RE: Inwood Landscape Plans

Hello, John.

See my comments and recommendations below regarding the latest filtration basin plans you provided (plans dated 3/17/16).

Inwood Filtration Basins - SWWD Recommendations and Comments:

- 1. Filtration Basin Amended Soil Media:
- a. As the majority of the basin bottom is covered by a dry creek bed (vs. vegetation), it is recommended the filtration media be very lean on organics, following MN Stormater Manual's updated Mix B with 85% Sand, 15% organic matter (MnDOT grade 2 compost and/or Peat) where the soil mixture has a phosphorus index between 12 and 30 mg/kg per Mehlich III (or equivalent) test.
 - b. For more information on Mix B -

 $http://stormwater.pca.state.mn.us/index.php/Comparison_of_pros_and_cons_of_bioretention_soil_mixes$

- 2. Filtration Basin underdrain:
- a. Geotextile fabric Geotextile fabric is no longer recommended around underdrains (due to clogging/failure issues). Use choking stone (minimum 2" thickness between filtration media and larger diameter washed stone adjacent to pipe) in place of geotextile fabric.
- b. Ensure there are inspection/cleanout risers at upstream and downstream ends of the underdrain (at minimum)
- c. Add a gate valve at the downstream end of the underdrain (just before underdrain outlet) to allow for performance optimization.
- d. The Minnesota Stormwater Manual provides more information regarding underdrains: http://stormwater.pca.state.mn.us/index.php/Design_criteria_for_filtration
- 3. Ensure top of all landscape material (top of sod thatch, shredded hardwood mulch, top of stone (dry creek bed) is set 2" below ribbon curb to allow sheet flow runoff to remain as sheet flow entering the filtration basin area.
- 4. Comments on Landscape Notes:
- a. Note 2: Vinyl edging tends to be a maintenance issue in locations where stormwater flows must cross consider steel edging or grade to ensure flows do not cross edging locations
- b. Note 5: Geotextile fabric is not recommend under the dry creek bed within the filtration basin's level bottom. However, for maintenance and erosion control purposes, geotextile fabric is recommended under dry creek bed sections adjacent to the ribbon curb and other side slopes.

Т	ha	n	ks.
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Andy

Andy Schilling Watershed Restoration Specialist South Washington Watershed District aschilling@ci.woodbury.mn.us 651-714-3717 Click for Directions

----Original Message----

From: John Rask [mailto:jrask@MIHOMES.com]

Sent: Monday, March 28, 2016 3:11 PM

To: Schilling, Andrew

Cc: Loomis, John; Moore, Matt; Jenni Thompson

Subject: RE: Inwood Landscape Plans

Andy,

I apologize. The e-mail I sent last week got bounced back. It must have been too large. I was trying to send you the complete grading plan along with the updated landscape plans.

We've made a few adjustments based on the suggestions of the City's landscape architect. These are still filtration basins with underdrains. They are mislabeled on our landscape plans as infiltration basins. I will correct this. You will find the filtration basin detail with the soil amendments specified on page 7 of the grading plan. This detail is the same as the original submittal.

As previously mentioned, there is a homeowners association that is obligated to maintain these basins.

Thanks,

John

----Original Message----

From: John Rask

Sent: Friday, March 25, 2016 8:44 AM

To: 'Schilling, Andrew'

Cc: swensman@lakeelmo.org; Loomis, John; Moore, Matt; Jenni Thompson; Stephen Mastey

Subject: RE: Inwood Landscape Plans

Andrew,

Attached are the landscape plans for the islands.

Please feel free to call me or e-mail with any questions.

Thanks,

John Rask | VP Land M/I Homes of Minneapolis, LLC

Office: (763) 586-7202 | Mobile: (612) 910-9909

941 NE Hillwind Road | 300 | Fridley, MN | 55432 jrask@mihomes.com

----Original Message-----

From: Schilling, Andrew [mailto:aschilling@ci.woodbury.mn.us]

Sent: Thursday, March 24, 2016 9:39 AM

To: John Rask

Cc: swensman@lakeelmo.org; Loomis, John; Moore, Matt

Subject: RE: Inwood Landscape Plans

John,

We need more information from you to clear up inconsistencies with the basin plans:

- 1. We've seen several different landscape plans for these basins send the most current to us.
- my comments regarding the basin final cover last week were based on plans dated 3-26-15 2. These basins were originally permitted as filtration basins with underdrains. Is this still the plan?
 - include details on soil amendments

These are a critical part of the stormwater management plan for the site, so we need to ensure they are built for long-term functionality.

Thanks,

Andy

Andy Schilling
Watershed Restoration Specialist
South Washington Watershed District
aschilling@ci.woodbury.mn.us
651-714-3717
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----Original Message-----From: Loomis, John

Sent: Thursday, March 24, 2016 8:36 AM

To: Schilling, Andrew

Subject: FW: Inwood Landscape Plans

John Loomis/SWWD 651-714-3714

-----Original Message-----From: Moore, Matt

Sent: Wednesday, March 23, 2016 3:34 PM

To: Loomis, John

Subject: FW: Inwood Landscape Plans

Matt Moore

Administrator South Washington Watershed District 2302 Tower Drive Woodbury, MN 55125 P: 651.714.3729

C: 651.249.7096 mmoore@ci.woodbury.mn.us www.swwdmn.org

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-----Original Message-----

From: Stephen Wensman [mailto:SWensman@lakeelmo.org]

Sent: Wednesday, March 23, 2016 3:13 PM

To: Moore, Matt

Subject: Inwood Landscape Plans

Matt,

I have attached the landscape plans for Inwood and you can see that the landscape plans for the infiltration basins show only rocks with no plants. The grading plans do not match the landscape plans. The developer plans on installing without native plants. Again, please let me know if you have any questions.

Stephen Wensman Planning Director City of Lake Elmo 651-747-3911