From:	Rob Gordon
To:	Boyd, Joseph
Cc:	Trent Butler; Brian Chambers
Subject:	Eng review - Arbor commons
Date:	Tuesday, December 13, 2016 11:31:55 AM
Attachments:	Peel 17th MUP ramp.pdf
	image003.png

Engineering has reviewed the resubmittal for Arbor Commons and have the following comments:

- 1. Note only First, thank you for the detailed response letter and narrative! I cannot tell you how helpful it makes a re-review.
- 2. There appear to be encroachments (fences) into the proposed r/w. We will not accept r/w with encroachments. Please resolve the fence and any other encroachment that may exist.
- 3. I discussed with our attorney's office and the easement recorded in MB 33/132 can simply remain. There is no need to propose another 20' easement to cover the pond outfall.
- Please make sure all easement widths are as required by City technical standards (Sec 5 p3).
 20' is a minimum, the connections to the pond will almost certainly need to be larger.
- 5. The public drainage easement along Rd B does not need to extend over CB-11. That box does not collect public runoff. The cross pipe from CB 11-to CB-10 will remain privately maintained.
- 6. I am going to need you to restructure how the impervious area is compiled. It will have to be broken down by lot and the proposed deed restrictions need to be revised. Call to discuss.
- 7. We will allow street trees in the easement as long as they are not located over top of or in direct proximity to the pipes. Street trees are required adjacent to Spring Arbor. They may not be necessary in areas because of the existing Spring Arbor trees. Please work with the city Urban Forester to add select trees to achieve compliance with City Standards.
- 8. Note regarding ADA accessibility:
 - a. We will not require crosswalk markings on any of the identified driveway or street crossings associated with the project except the MUP on the 17th entrance, and that should be called out as a special emphasis crosswalk.
 - b. We will require ADA ramps along Hollingsworth across Rd B.
 - c. Please make sure the stop bar is set back the proper distance from the accessible path, even if it an unmarked accessible path (Hollingsworth & Peel, possibly others)
- 9. Please utilize a 60' radius or more on the MUP bends. Sharp bends in the trail are undesirable for cyclists.
- 10. There is a maintenance concern with CB 7 in the middle of the driveway, especially if this is a sag. You will either need to move the entrance or move the sag and CB. If the sag is moved to the West side of the entrance, you may be able to eliminate a box.
- 11. Please add additional spot elevations or grading detail for the turn lane on 17th. I do not know if 17th is super-elevated to drain to the North or if it has normal crown. Will there be a break in the crown at the turn lane (shown on DA map)? Will all drainage from the HP at 3+45 on Rd B flow along w turn lane drainage to the East toward the ex CB?
 - a. Note if you are adding drainage to the existing CB, you will need to analyze spread and capacity of that pipe (to the ditch). I will not require calcs for the ditch or downstream receiving pipe.

- 12. See attached pdf regarding the existing ramp at Peel and 17th. Please address this comment and be sure to add pedestrian easement if sidewalk has to be re-aligned.
- 13. Note Only City staff are going to meet internally about the proposed traffic calming measure at Hollingsworth/Road B. Additional comments may be provided after that discussion.

Please submit one full set of revised plans and a full set of final calcs to Engineering for final review. Please call or email if you have any questions. Thanks.

Robert Gordon, PE Plan Review Engineer

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