



innovative *by* nature

June 19, 2017

Bryan K. Barnett
Mayor

Mr. Jim Jones, P.E.
JJ Associates, Inc.
1055 South Boulevard, Suite 200
Rochester Hills, MI 48307

City Council

Stephanie Morita
District 1

Re: Pine Woods Condominiums
City File No. 05-005, Section 34
Construction Plan Review #2

James Kubicina
District 2

Dear Mr. Jones:

Susan M. Bowyer, Ph.D.
District 3

Engineering Services has reviewed the plans for the above referenced project, received by the Department of Public Services on April 26, 2017. The plans, as submitted, **are not in approvable form** based on the following comments:

Thomas W. Wiggins
District 4

Kevin S. Brown
At-Large

General

Dale A. Hetrick
At-Large

1. Provide a landscape plan with the next submission.
2. Update the topography to show current existing conditions from the adjoining properties compared to 2005. Show the proposed addition to the neighboring parcel to the west.
- 3.

Mark A. Tisdell
At-Large

Sanitary Sewer

1. Relocate proposed sanitary sewer manhole #1 to the south to provide 10 feet of easement on each side of the sanitary sewer or provide an offsite sanitary sewer easement from the landowner.

Water Main

1. Provide a note near the northwest corner of the property where the water main is proposed to tie in to the proposed development to the west stating: "A looped water main system is necessary, If the proposed development to the west does not construct the connection on the north side of Auburn Road, the Pine Wood Development will have to make the connection."

Storm Sewer

1. Revise the offsite drainage from the development to the west discharging from the increased detention basin to proposed catch basin #17.
2. Provide shop drawings for the proposed Aquaswirl AS-8 on the construction set.
3. Revise the location of the Aquaswirl to make it offline of the storm sewer network.
4. Remove the stub coming out of catch basin #18 and account for storm sewer water @ catch basin #17.
5. Provide a floatable trap detail on the detention basin plan.
6. Relocate the access drive near the pretreatment device for maintenance purposes. Remove the access drive from unit 21 on all sheets.

7. Label the freeboard elevation of 797.50 throughout the construction set and that the top of bank is 798.00.
8. Revise the plan, profile and storm sewer calculations so they all correspond.
9. Provide the clay cut off detail on sheet 7 as stated on the detention pond layout.
10. Maintain 1 foot of separation between the H.G. line and the rim elevation throughout.
11. All rim elevations need to be at the top of bank of the detention basin or higher; revise as necessary.
12. Catch basin #30 rim elevation needs to be 1 foot lower than existing grade to the east.
13. State how many holes, size of holes and elevation of the holes on the permanent SO-2 filter detail on page 7 for both the 36-inch cmp. and 48-inch cmp.

Grading

1. Label side slopes for the proposed detention basin as 1:6 maximum allowable on the detention pond detail sheet.
2. There needs to be 1 foot of difference between the finish grade of the house to the high point of the swale when the proposed drainage drains from rear to front.
3. Need to provide a minimum of 1.0% slope throughout the grading plan for the proposed swales; revise as necessary.
4. Provide a 1-foot protective berm behind units 18-21 to maintain drainage onsite.
5. Show the proposed driveways with proposed slope on the grading plan maintaining slope between 2% and 10%, except through the sidewalk, which needs to be at 2% maximum cross slope.

Traffic

1. The dead end road needs to better match the existing grade to the west; revise as needed.

Once all the comments above have been addressed, submit two (2) sets of revised plans to my attention. Please feel free to call me at 248.656.4640 with any questions or comments you might have.

Sincerely,



Jason Boughton, AC
Engineering Utilities Coordinator
Department of Public Services

JRB/bd

c: Allan E. Schneck, P.E., Director; DPS
Tracey Balint, P.E., Public Utilities Engineer; DPS
Paul Shumejko, P.E., PTOE, Transportation Engineer; DPS
Keith Depp, Staff Engineer; DPS

Paul Davis, P.E. City Engineer/Deputy Director; DPS
Sheryl Mclsaac, Office Coordinator; DPS
Russ George, Engineering Aide; DPS
File