

October 7, 2019

Mr. Mark E. Langer, PE
Baxter & Woodman
2005 W. Beltline Hwy, Suite 201
Madison, WI 53713



Re: Red Hawk Apartments
Milton, WI

Dear Mark:

Please find enclosed the following revised documents for your review and approval for construction of proposed improvements to Red Hawk Apartments in Milton, WI and watershed management for the above referenced project.

We offer the following responses to your comments on the plans emailed September 19, 2019 and on the stormwater report emailed September 20, 2019.

9-19-19 Review Comments

General Comments

1. The storm water management plan and calculations were received 9-16-19. Comments will follow upon completion of review.
Received. Below are our responses to those comments.
2. Provide notes and details for traffic control and protection
Traffic control information has been provided in new sheets C-10.01 and C-10.02.

Site Notes and Legends

3. Parkview Drive should be 2.25 inches of HMA surface and 2.75 inches of HMA Binder over 12 inches of aggregate base listed (8 inches of 3 inch and 4 inches of 1.25 inch).
The section has been updated per your request.
4. Woodcrest and Blanche should be 1.75 inches of HMA surface and 2.25 inches of HMA Binder over 12 inches of aggregate base listed (8 inches of 3 inch and 4 inches of 1.25 inch).
The section has been updated per your request.
5. There should also be a means for EBS under all pavements.
Note 6 has been added to the Grading Notes that dictates excavation below subgrades.
6. All HMA surfaces should be installed so that the EOP is 0.25 inches above the gutter flag.
Note 7 has been added to the Grading Notes that directs contractor to install edge of pavement 1/4" above the gutter flag.
7. Sidewalks can be 4-inches thick.
Concrete sidewalk section is now shown to be 4" thick.
8. Where sidewalk abuts driveways, the thickness should match the concrete driveway thickness or be a minimum of 8 inches whichever is greater.
Note 8 has been added to the Grading Notes showing the sidewalk is to be thickened at driveways.

9. Adjusting rings (valve manhole, sanitary manhole and storm structures) can be WisDOT approved rather than concrete only.
The adjusting ring notes have been updated to allow for WisDOT approved rings.
10. All sanitary sewer pipe (main and laterals) is required to be SDR 26 regardless of depth.
All sanitary sewers are now noted as SDR 26.
11. Mac Wrap will not likely be required. Add to note 2.7 where groundwater is present...
Note 2.7 has been updated to included “where groundwater is present”.
12. Can the R2504 frame be changed to R2578? That is a 1550 with an open lid. That way the Frames will be the same for the whole project.
The frame has been updated per your request.
13. Catch basins along the curb line should have the same 3067 frame as inlets.
Catch basins installed along curbs are noted to be 3067 frame and grates.

Site Demolition Plan – East

14. The full depth pavement removal is appropriate. There may be concrete pavement below the HMA in some locations along the route.
Noted.

Site Geometry Plan – East

15. The proposed roadway width of Blanche Drive between STA 7+00 and 6+50 is below City Ordinance minimums.
The pavement width has been increased to match the pavement widths further west.

Site Utility Plan – West and East

16. Confirm that there is no water main loops inside any of the buildings. If an interconnect exists inside of a building, provide a check valve in the meter room or another location accessible by City of Milton Utility.
The plumbing engineer has been contacted to confirm. Once we receive this confirmation, we will pass along the communication. If there is interconnection, a check valve shall be added to the design.
17. Provide sewer-sizing calculations including planned future phases to show compliance with NR 110. Should 171 feet of 8-inch sewer between MH at STA 6+60 Parkview and STA 10+00 be 10-inch?
Sewer sizing calculations have been included with this submittal.
18. Move the valve vault at the west end of Blanche closer to the right-of-way line.
The valve vault has been shifted west.
19. Verify that storm sewer and sanitary sewer crossings of water main meets utility separation requirements of NR 811 and SPS 382.
Sewer crossings meet utility separation requirements.
20. All storm sewer pipe within the ROW needs to be RCP. Change pipe between CB 33 and CB 32.
All storm sewer in the ROW is now RCP.
21. Recommend a minimum of 12 inch diameter for entire site for future maintenance.
Based on slopes, cover and total flows, the pipe sizes have not been updated. Your recommendation has been noted.

Grading and Paving Plan – West and East

22. Adjust hatching for pavement areas based on previous comments
Hatching has been updated.

Site Details – Add notes from Site Notes and Legends Sheet

23. Water Valve Vault – Add a note requiring flexible pipe to manhole connections, hole in bottom of vault

The detail has been updated accordingly.

24. Hydrant Installation – Add note requiring Rodon Hydra Finder Flag, Manufacturer Coated Yellow, the water main pipe will be 6-inch, valve box stabilizer, replace dense graded aggregate with clear stone, cover clear stone with geotextile fabric, show tracer wire access box behind hydrant
The notes have been added and the detail updated.

25. Trench Sections – Under pavement compact to 95% modified proctor, allow for engineers discretion on the use of excavated materials as backfill.

The note for excavated materials has been added to each trench section detail.

26. Provide details for sanitary sewer manholes, sanitary sewer laterals including tracer wire and tracer wire access box, and water services.

Tracer wire and access boxes have been added to the relevant details.

Parkview Dr. Roadway Plan and Profile

27. Minimum slope is 0.5%

Slopes will be updated to meet the 0.5% requirement. Changes are being made to meet this requirement and will be provided upon completion.

28. Review WisDOT Facilities Design Manual 11-10 for requirements of a vertical curve. Changes in grade of more than 1% require a vertical curve. This would apply at Blanche Drive.

Corrections for the vertical curves are still under review. Changes are being made to meet this requirement and will be provided upon completion.

Blanche Dr. Roadway Plan and Profile

29. Show utilities in profile to verify no utility conflicts.

The utilities will be added upon completion of the vertical curve grading changes.

30. Review WisDOT Facilities Design Manual 11-10 for requirements of a vertical curve. Changes in grade of more than 1% require a vertical curve

Corrections for the vertical curves are still under review. Changes are being made to meet this requirement and will be provided upon completion.

Roadway Cross Sections

31. Add proposed elevations for EOP, CL, subgrade, etc. and roadway cross slopes. A typical section would be helpful in the details or notes as well.

Cross section elevations will be added upon completion of the vertical curve grading changes.

Public Water Main Plan and Profile

32. Minimum 18-inches separation required where 36-inch storm sewer crosses over 12-inch water main under Blanche Drive near STA 4+75.

The water main has been lowered to ensure this separation is met.

9-20-19 Review Comments

Stormwater Management Report

33. In the Stormwater Rate Control Design:
 - a. Use the latest NOAA Precipitation Frequency Data Server rainfall depths instead of the Rock County Ordinance rainfall depths. The 100-year rainfall depth is somewhat higher in the NOAA data.
The NOAA precipitation data has been used in the updated calculations and report.
 - b. Also provide an existing conditions calculation that includes all offsite tributary areas for comparison to the proposed conditions.
The existing conditions for the offsite areas are included and highlighted in the updated report.
34. In the Storm Sewer Capacity calculations, provide an explanation/discussion for the storm sewer segments that show design flow in excess of capacity (red colored cells in spreadsheet).
An explanation has been provided in the report.
35. In the WinSLAMM calculations:
 - a. The WinSLAMM analyses are for a site of 13.017 acres and storm water management report indicates the site is 12.7 acres. Provide an explanation for the difference.
An explanation has been provided in the report.
 - b. Provide supporting information for the swale infiltration rate (0.025 in/hr) used in the existing conditions calculations.
An explanation has been provided in the report.
 - c. Provide explanation for the significant difference in the total amount of “normal sandy” conditions in the existing and proposed models.
An explanation has been provided in the report.

Civil Plan Set

36. Grade a more formal swale or equivalent path directly from the emergency overflow weir of the Red Hawk Subdivision’s infiltration/detention basin to this development’s bioswale. Recommend doing that in the first phase of this project.
This swale has been added to provide overflow conveyance from the development to the west.
37. Provide stabilized emergency overflow weirs/locations for the bioswale and infiltration/detention basin.
Stabilized spillways have been shown at the detention basin and the bioswale.
38. Provide construction note to loosen or disturb underlying native soils in the bioswale and basin to promote infiltration.
This note has been added to the grading plan.

We would appreciate your assistance in expediting the approval of the permit, as we hope to begin construction as soon as possible. Thank you for your cooperation, and if you should have any questions please do not hesitate to contact me.

Very truly yours,

Eriksson Engineering Associates, Ltd.

A handwritten signature in black ink, appearing to read 'Tim', with a large, stylized flourish that loops back and ends in three dots.

Timothy Brown, PE
Project Engineer