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March 11, 2021

David Swearingen, PE,
Public Works Director/City Engineer
Arden Hills City Hall
1245 W Highway 96
Arden Hills, MN 55112

Re: Athletic Improvements Bethel University - Engineering Plan Review Comments

Dear David,

An engineering plan review has been performed on the 2021 Land Use Application, signed Feb. 16, 2021 for the **Athletic Improvements, Bethel University**. A summary of the review comments follows:

CONDITIONAL USE APPLICATION

1. Application notes Sanitary and Water main as completed. Items were shown in legends but did not see any on plans. Need to be shown and detailed. **No sanitary or water main. Removed from legends.**

SURVEY

2. Survey is not signed. **Signed survey is now attached.**

PLAN SHEETS

C1.0 – TITLE SHEET

3. General Notes
 - a. Note 3 – Add note that no work shall begin until all permits are obtained and submitted to, and accepted by, the City. **Note added to plans.**
 - b. Note 4 – Add note that no work shall begin until traffic plans are submitted, reviewed or approved by the City. Of if none required, remove note. Note 7 – Who is responsible for dewatering permits? **No traffic plans are anticipated being required. Note #7 has been changed to indicate contractor is responsible for de-watering requirements. This is now note #8.**

C1.1 – EXISTING CONDITIONS

4. What is the scalloped line at the end of the “remote trees and shrubs” area? **New tree limits. Removed from C1.1**
5. What utility is being removed with the remove utility symbol? **Storm sewer - 18" CMP.**
6. Ex. gravel access road is shown encroaching on RR ROW. Prior to construction, written approval needed to work off-site. **All work is to occur on-site. No off-site construction will occur.**

C1.11 – EXISTING CONDITIONS

7. Property line note dashed in legend. **Dashed Property Line.**
8. Are heavy font elevations proposed elevations? **No, all spot elevations shown on sheet C1.11 are existing.**

C1.2 – SITE GEOMETRIC PLAN

9. What do the scalloping lines represent? **New tree limits. Added to legend.**

C1.3 – SITE FINISHING PLAN

10. Missing detail number on detail callouts **Added detail callouts and details to plans.**
11. What are dark squares and triangles on this sheet? **Added to legend.**
12. Add grading info for relocated dirt access road. Ensure it does not drain of-site. **See sheet C1.4 for grading.**
13. Is there a set-back requirement for the dirt access road or fence from the property line? **Don't believe so, since the access road isn't paved.**
14. Is fence constructable in location shown without encroaching on adjacent property? **Yes, concrete fence footing is 2' from property line at closest point. City code mentions fences of at least 75% opacity are allowed in setback.**

C1.31 – SITE FINISHING PLAN

15. What is THROWS in title? **Indicates throw events area.**
16. Missing detail number in call-out. Typ. **Added detail callouts and details to plans.**

C1.4 – GRADING AND DRAINAGE PLAN

17. No piping shown to CB's or MH's. **Will superimpose pipe routes on grading plan.**
18. What is the scalloped lone representing? **New tree limits. Added to legend. Proposed chainlink fence w/ maintenance strip. Shown on C1.3.**
19. What is the double line with black dot representing? (e.g., though boring B-8) **Proposed chainlink fencing. Shown on C1.3.**
20. What is single line with black dots representing? **Proposed chainlink fencing. Shown on C1.3.**
21. Provide path elevations. **A few more spots along path have been added.**

C1.41 – GRADING AND DRAINAGE PLAN

22. Are dark elevations proposed elevations? **Dark spot elevations outside grading limits have been frozen.**

C1.5 – UTILITY PLAN

23. Missing info in UGS 1A Section detail **UGS Details on sheet C2.2.**
24. Filtration Areas **Infiltration design has been completed adding items a,b,c,d.**
 - a. Shows nodes with no structure.
 - b. No pipe information shown.
 - c. No inlets shown.
 - d. Different pipes styles are shown.
25. Notes 1 - XXXX sheets are referenced for notes. **Detail bubbles have been completed.**
26. Proposed water and sanitary are shown in legend, but not on plans. **Water shown on plan, Sanitary removed.**
27. Not all pipe types are shown in legend. **Added other pipe type to legend.**

C1.6 – EROSION AND SEDIMENT CONTROL PLAN

28. Structures shown with no connecting pipes. **Shaded in connecting pipes.**
29. What are proposed contours typing into? **Added existing contours.**
30. Are dark elevations proposed? **Yes, within grading limits.**
31. What is 6-feet tall? **Existing 6' fence.**
32. Scalloped line is not in legend. **New tree limits. Added to legend.**
33. Scale units missing **Added scale bar.**

34. Show construction entrance use will not encroach off property. **Construction entrance shown on property.**

L1.0 - LANDSCAPE PLAN

35. Scale missing units **Added units to legend.**

36. Water quality volume and details are not shown on plans. **Refer to sheet C1.5 & C1.51.**

C2.1 - DETAILS

37. 3/C2.1 – What is wood stake dimension? **1-1/2" x 18" min. Added to detail.**

38. 4/C2.1 number used twice. **Re-Numbered all details.**

39. 4/C2.1 PIPE BEDDING – No pipe wrap for perforated pipe? **New detail. Non-perforated pipe.**

40. 9/C2.1 – How will detailed wrap drain tile into san subbase be constructed? **Trench subbase, lay geotextile**

41. 10/C2.1 – How will detailed wrap drain tile into san subbase be constructed? **fabric, pour pearock in, wrap**

42. 11/C2.1 – How will detailed wrap drain tile into san subbase be constructed? **rock with fabric, pour in sand.**

43. Missing detail callout numbers in several details **Re-Numbered all details / callouts.**

44. Detail watermain offset information. No watermains are shown on utility plans. **Removed watermain detail.**

STORM WATER MANAGEMENT REPORT

45. Confirm 2, 10 and 100 event runoff is per checklist and are ATLAS 14. **Event runoffs are per checklist and are ATLAS 14.**

Thank you for the opportunity to perform the engineering review on the Athletic Improvements Bethel University plans. If you have any questions, or need any additional information, please contact John Morast at jmorast@hrgreen.com or 763.710.1514.

Sincerely,



HR GREEN, INC
John W. Morast, PE
Regional Director