

PUBLIC WORKS ENGINEERING DIVISION

Date: Friday, January 19, 2018

To:

CMH PARKS INC

Email:

Fax #: <NO FAX NUMBER>

From: Sue Pyles, P.E.
Staff Engineer

Application Number: PL2017184

Application Type: Engineering Plan Review

Application Name: The Reserve at Stoney Creek 3rd Plat
Construction Plans

The Development Services Department received plans for this project on September 01, 2017. We have completed our review and offer the following comments:

Engineering Review

1. Sheet C.001
 - A 2% to 4% cross-slope is shown for the sidewalk within the right of way on the typical asphaltic concrete section. Please revise to comply with our standard of 1.5% cross-slope.

2. Sheets C.050-C0.52
 - Please revise "Phase 2" to "The Manor at Stoney Creek 2nd Plat" in the sediment basin label.
 - Include a legend for inlet protection.

3. Sheet C.100
 - Remove the "Off-Site Sanitary" label. Show the sanitary sewer extending to the plat line per the Sanitary Sewer plans on this sheet and throughout the plan set.

4. Sheets C.200-C.202
 - MBOEs were not provided for any of the lots on the Master Drainage Plan. It would appear that several lots adjacent to field inlets in the sump condition would warrant an MBOE. Please provide MBOEs for these lots, and elevate the MBOE so they are a minimum of 2.0 feet above the 100 year water surface elevation.
 - Basement types (e.g., standard, daylight, walkout) were not provided on the Master Drainage Plan.
 - Please revise the overlapping graphics at the end section near Lots 90 & 92.

- There is a graphic that appears to be an existing condition that is on Lots 78-80, 91, 101-103. Please remove throughout the plan set.
5. Sheets C.203-C.206
- The overlapping of text and graphics has not been addressed as previously requested. Please revise for clarity.
6. Sheet C.207:
- Revise overlapping text for clarity.
7. Sheet C.208-C.209
- A 4' x 4' turning space is required. It does not appear that the Type B ramps meet this requirement.
 - Please add a note specifying the use of KCMMB mix for sidewalks.
 - Include detailed plans showing how the intersections will be constructed to accommodate accessible routes through the intersection at stop conditions.
 - Ramp designs are missing for the NE & NW corners of the Tanzanite/Georgetown and NW corner of Amethyst/Georgetown intersections.
 - FYI – “Intersection” is misspelled in the Intersection/ADA Ramp Elevation title.
8. Sheets C.301-C.305
- Several field inlets are shown in a sump condition, with openings on all sides. However, the profile view shows the tops being flush with the ground. Please correct the profile view to reflect the grading around the field inlets to create a localized sump.
 - Include station equations at all structures where multiple lines connect. Include the Line Number in each station label.
 - Include the sanitary sewer crossing between FI 1-3 & 1-2 in the Line 1 Profile.
 - Include the sanitary sewer crossing between CI 3-4 & 5-1 in the Line 5 Profile.
 - CI 5-1 & 5-2 labels are reversed in the Line 5 Plan view.
 - The CI 7-1 Top Elevation in the structure label does not match the graphical representation. Revise accordingly.
 - The CI 8-4 FL in (S) is missing from the Line 8 Profile.
 - The stationing for CI 8-5 appears incorrect in the Line 8 Profile.
 - The Storm ID 13-2 FL in is missing from the Line 13 Profile.
 - A structure is shown graphically in the Line 10 Profile at the upstream end of Line 10, connecting to existing. The plan view does not indicate a structure at this location. Revise accordingly.
 - Rip-rap calculations are not included for all locations, and several do not include the correct structure number. Please clearly indicate the required thickness for each rip-rap installation.
 - Show rip-rap at ES 13-3 throughout the plan set.

9. Sheet C.600
 - Replace the APWA Curb standard detail with the Lee's Summit Curb & Gutter standard detail.
 - Include the Lee's Summit Sidewalk standard detail.
 - Include APWA Erosion and Sediment Control standard details.
10. Notes should be provided stating that all ADA-accessible ramps shall be constructed along with the subdivision improvements. Sidewalks, however, are not subject to this requirement.
11. A SWPPP will be required prior to approval of any land disturbance or prior to approval of the plans, whichever comes first.
12. Engineer's Estimate of Probable Construction Costs
 - Verify the quantities for ADA Sidewalk Ramp, 36"/30"/24"/15" HDPE, and 36"/24" HDPE End Section and revise if needed.
 - Add line items for Rip-Rap, Outlet Structure, and Underdrain.

Traffic Review

1. Generally, a full review of these plans was not completed. It has been determined the plans do not meet the minimum requirements in Section 5204.
2. The signing plan is incomplete (e.g. missing signs from the plan). Refer to previous comments regarding the signing plan. In addition, separate the designation of stop signs and street name signs since both are not required at each intersection corner installation. Lastly, the signing orientation at Stoney Creek Drive is backwards, Stoney Creek Drive should not be stop controlled.
3. The vertical profile along Lodestone across half of Georgetown creates a significant reverse crown (or superelevated cross section) along Georgetown through the intersection. A revision of the Georgetown profile may be necessary to maintain minimum K values on Lodestone.
4. The typical section should label the sidewalk with ADA compliant cross slope, not 2%-4%.
5. The typical section should provide for 4:1 grading rather than 3:1 grading.
6. Provide design information on the plans for the proposed underdrains.
7. The location of sidewalk along Lodestone seems inconsistent with the location of sidewalk along Lodestone in the adjacent plat.

8. ADA Ramp labels on C.100 at the intersection of Hightown and Amethyst should be removed since there are no ADA ramps proposed. The intersection detail sheet also has mis-spellings throughout.
9. Intersection details lack Station/Offset information for the PC, PT, etc. and should also include curb radius detail. The cul-de-sac should also not radius information and changes (i.e. station/offset) to the typical section.
10. The plans should include horizontal alignment information.

In order to calculate the Engineering Plan Review and Inspection Fee, a sealed Engineer's Opinion of Probable Construction Costs shall accompany your final submittal copies. The itemized estimate (material and installation) shall be sufficiently broken down and shall include the following items, as applicable.

- Public infrastructure, both onsite and offsite.
- Private street construction, including parking lots and driveways.
- Sidewalks located within the right-of-way.
- ADA accessible ramps.
- Sanitary sewer manholes and piping between manholes, including private mains.
- Connection of the building sanitary sewer stub to the public main.
- Waterlines larger than 2 inches in diameter, valves, hydrants, and backflow preventer with vault, if outside the building.
- Stormwater piping greater than 6 inches in diameter, structures, and detention / retention facilities - public or private.
- Water quality features installed to meet the 40-hour extended duration detention requirements.
- Grading for detention / retention ponds.
- Grading to establish proper site drainage.
- Utility infrastructure adjustments to finished grade (i.e. manhole lids, water valves, etc.).
- Erosion and sediment control devices required for construction.
- Re-vegetation and other post-construction erosion and sediment control activities.

Electronic Plans for Resubmittal

Beginning Monday, May 23, 2016, all Planning application and development engineering plan resubmittals shall include an electronic copy of the documents as well as the required number of paper copies. Electronic copies will not be required for initial application submittals at this time as the plans are subject to change.

Electronic copies shall be provided on CD in the following formats

- Plats – All plats shall be provided in Tagged Image Format File (TIFF) Group 4 compression.
- Engineered Civil Plans – All engineered civil plans shall be provided in Tagged Image Format File (TIFF) Group 4 compression. All sheets shall be individually saved and titled with the sheet title.
- Architectural and other plan drawings – Architectural and other plan drawings, such as site electrical and landscaping, shall be provided in Portable Document Format (PDF).

- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).
- It is requested that each plan sheet be a maximum of 2MB.

Please contact me if you have any questions or comments.

Sincerely,

Sue Pyles, P.E.
Staff Engineer
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cc: Development Engineering Project File