CITY OF Apple Valley

MEMO

Public Works

TO: Tom Lovelace, City Planner

FROM: Brandon S. Anderson, City Engineer

DATE: September 13, 2017

SUBJECT: Preliminary Subdivision Review – Cobblestone Lake South Shore 9th Addition

Tom,

The following are comments regarding the Cobblestone Lake South Shore 9th Addition.

General

- All work and infrastructure within public easements or right of way shall be to City standards. References to Standard city detail plates should be included in the plan set.
- Provide a narrative of how the buildings will be constructed and any impacts. The narrative shall include the following:
    a. Shoring (if applicable)
    b. Material Storage.
    c. Haul routes to and from the site.
    d. Phasing
- Storm sewer infrastructure that is being proposed in Lot 2 needs to have an agreement for future maintenance and access with property owner.
- Plans should include all standard detail plates.

Permits

- Provide a copy of the executed Minnesota Department of Health, Minnesota Pollution Control Agency, Met Council, Department of Labor and any other required permits.
- A right of way permit will be required for all work within public easements or right of way.
- A Natural Resource Management Permit (NRMP) will be required prior to any land disturbing activity commences.

Site

- Provide additional dimensions on site plan indicating radiuses, drive lane widths, etc…
    - Driveway access shall not be less than 24’ in width and be in accordance with City of Apple Valley detail plate STR-5.
    - Curb return radius shall be 25’ minimum.
- Show locations of proposed lighting fixtures for parking lot.

- Provide pedestrian curb ramp details in accordance with MnDOT standard plates. Indicated locations on the Site Plan C2-1
    - Additional curb ramp is required just to the north of proposed driveway access to align with sidewalk connection to the building.
- Sidewalk along Emperor near 157th should be denoted to be all sidewalk from curb line to curb in the turn lane. A narrow band of turf is not recommended for long term maintenance by City of Apple Valley.
- The door (furthest to the north on the east elevation) opens to the curb line. Sidewalk should be extended to safely exit from the building.
- Drive thru lane is indicated as future improvements. Additional details are required to be shown on plans prior to building permit authorization.
- Proposed drive thru lane is encroaching into proposed Lot 2.
- Western parking lot and curb line is encroaching into Ingress Egress Easement.

Grading, Drainage and Erosion Control

- Final Grading Plans shall be reviewed and approved by City Engineer.
- Final Storm water Management Plan shall be reviewed and approved by City Engineer.
- Provide drainage report and storm sewer calculations for proposed improvements.
- The applicant shall submit a copy of the General Storm Water Permit approval from the Minnesota Pollution Control Agency pursuant to Minnesota Rules 7100.1000 – 7100.1100 regarding the state NPDES Permit prior to commencement of grading activity.
- Erosion control measures shall be installed prior to beginning grading operations.
- A construction entrance shall be provided at all proposed entrances to be utilized for erosion control purposes. Construction access would only be allowed off Emperor Avenue.
- Street sweeping shall be performed as necessary to address material tracking from the site.
- The location and elevation of the site emergency overflow(s) (EOF) shall be identified on the plans. All critical HP and LP shall be identified along with drainage arrows.
- Provide the overall site composite Curve Number (CN) along with the impervious % on the area tabulation
- Lowest floor levels shall be 1.0’ above the EOF.
- Drive thru lane is indicated as future improvements. Additional spot elevations and grades are required to be shown on plans prior to building permit authorization.
- Bottom of infiltration basins is indicated at elevation 929.0. Back of curb and flow line elevation is indicated at approx. 932.5. 3.5’ of elevation in less than 5’ is not an acceptable slope. Large rip rap will not be allowed as a pre-treatment or stabilization in the curb island.
- Silt fence should be relocated on the perimeter of Lot 2 as it is likely this area will be used for staging and contractor parking during construction. Silt fence is shown within the construction limits for additional grading and sidewalk as proposed.

Sanitary Sewer, Water Main and Storm Sewer

- Final locations and sizes of Sanitary & Storm Sewer and Water main shall be reviewed with the final construction plans and approved by City Engineer.
- Domestic water and Fire service shall be split outside the building and the valves shall be located 1.5 times the height of the building away from the building or placed in location readily accessible per SER-6.
- Casting types for Storm structures should be indicated on plans. CBMH 5 should be a drive over type casting or relocated out of drive lane.
- Rodent guards are recommended to be called out on roof drain leads that daylight directly to storm basins. Backflow prevention may be required as storm water management plan does not show high water elevations of proposed storm water basin.
- Proposed top of sanitary pipe elevation at infiltration basin crossing is approx. 927.0. Bottom of basin is indicated at 929.0. Insulation or relocation is required.
- Proposed water main is shown cutting across infiltration basin. Water main should be relocated out of proposed infiltration basin

Landcape and Natural Resources

1. Raingarden design and construction standards, plans, and details are incomplete for the project at this time. The City would recommend following the guidelines of the Dakota County LID Standards (http://www.dakotaswcd.org/pdfs/Dakota%20LID%20Standards%20Revised%2002-09-12.pdf) for construction and design as well as the Minnesota Stormwater Manual.
    a. Dakota County Soil and Water Conservation District may be available to suggest alternative storm water practices for the site.
2. A planting plan and methods of establishing vegetation in raingarden is not included other than a seed mix for the raingardens. A detailed plan shall be provided. Raingardens adjacent to the road and private drives should be planted and not seeded. Additionally, planting rather than seeding provides a more designed look and allows for quicker plant establishment. Raingardens generally need to remain offline until vegetation is established, which can be more than a year for native plant seed mixes. That may be difficult to accomplish for this particular project.
3. Provide cross section and detail for the proposed infiltration basins. Proposed elevations, soil mix, plantings, relationship to parking lot and curb should be clearly detailed.
4. The raingardens appear to currently be designed to 3.5' deep. Soils maps show that the soils on the property are likely C soils. The Minnesota Storm water Manual recommends using an infiltration rate of 0.2"/hr for C soils.
    a. 3.5' is too deep a depth to infiltrate in C soils within 48 hours as required by state regulations. Raingardens should be no deeper than 6"-9" deep in C soils. Raingardens shall be designed shallower and larger in area to meet state infiltration requirements and city storm water requirements.
5. Pre-treatment is required prior to entering the raingarden. Rain Guardians have been effective for this type of proposed storm water system.
6. Adding iron or other enhancements may increase the phosphorus removal of infiltration systems on site. This property is in the East Lake TMDL watershed, making phosphorus reductions a priority.
7. Landscape plan should clearly indicate drainage and utility easements and property line.
8. No major tree plantings shall be located over any underground utilities. Clusters of trees shall be used near or around these areas instead of planting in a row. The Drainage and

Utility Easement will require clearance around the underground utilities, or the expectation that trees may have to be removed for access when needed.

9. A storm water infiltration maintenance agreement for the proposed treatment system will be required as part of the development agreement.
    a. Cleaning out sumps and Rain Guardians and other pretreatment at minimum twice per year, once in spring and once in fall, should be included in the maintenance agreement for the infiltration systems on site.
    b. Vegetation maintenance for the first 3 years of plant establishment should be more intensive and take someone with a special knowledge of native plants in the basins.