



9801 Renner Boulevard,
Suite 300
Lenexa, KS 66219

October 17th, 2019

City of Lee's Summit, MO
220 SE Green Street
Lee's Summit, MO 64063

RE: PL2019023 – Paragon Star Soccer Complex Storm Plan

We have received your comments dated May 6th, 2019 for the above referenced project. Our responses follow each comment. The comment responses have been organized by the review section they pertain to.

Engineering Review

1. General:

- Since only storm sewer comments from the last review were used revising this resubmittal, all comments from the previous review not related to the storm sewer still apply.
GBA Response: Acknowledged.
- Pipe profiles are required for all storm sewer pipe greater than 6" in diameter. It appears that all pipe sizes shown in the plan set are greater than 6" so will need to be included in profiles.
GBA Response: Pipes connecting the field drainage systems to the pipe network in these plans have been moved to Landscape plans.

4. Sheet C-100: Revise General Note 11 to include the source.

GBA Response: Revision added. Source is the Missouri Department of Natural Resources.

8. Sheets C-400 – C-408:

- Since water and sanitary sewer are included in other plan sets, label all water and sanitary sewer construction notes as "Information Only".
GBA Response: Note added.
- Label Structure 2202 on Sheet C-403 and Structure 1701 on Sheet C-408.
GBA Response: Labels added.

9. Sheet C-504: Replace the APWA structure details with City's standard details.

GBA Response: Details replaced.

9. Sheet C-505: Include a standard detail for each type of lid to be used with the Nyloplast Drain Basins, a detail for only one lid type is included.

GBA Response: Details for both domed lid and flat lid are included.

8. Sheets C-600 – C-602:

- Show and label proposed grade and existing ground in all profiles. Show and label mass grading in profiles where appropriate.
GBA Response: Additional labels have been added.
- Include the following note on any profile sheet applicable: "Compacted Fill shall be placed to a minimum 18" above the top of pipe prior to installation."
GBA Response: Note added.

- Show and label the limits of the compacted fill placement in the profile view. Use hatching for clarity.

GBA Response: Labels and hatching added.

- Include flowing elevations at structures 802, 1301, 2001 for the underdrains connecting to the structures.

GBA Response: Labels added.

- Include a leader from structure 1401 to the F/L information below.

GBA Response: Leader added.

8. Sheet C-700:

- All of the storm sewer shown in the plans should be included in the Drainage Map. The ability for each structure to capture all drainage or have bypass and where that bypass will flow to must be designed, analyzed, and reviewed.

GBA Response: Acknowledged.

- Verify that each drainage area is shown flowing to a structure with an opening.

GBA Response: Drainage areas have been double checked.

8. Sheets C-800:

- Revise the structure numbers for line 1700, they are incorrect.

GBA Response: Structure numbers have been corrected.

- Expand the calculation to include the storm sewer added to the drainage map and profile sheets.

GBA Response: Calculations include all storm sewer shown in drainage map.

- Verify that all structure types are correct and consistent throughout the plan set. For example, structure 2204 is shown as a junction box in plan and profile views, but is shown to have drainage to it in the drainage map and is shown as an area inlet on this sheet. Revise plans as needed for consistency.

GBA Response: Label have been updated.

- Are all structure types represented by the three structure types in the calculations table?

GBA Response: A Nyloplast Junction with a solid lid and a Dome Area Inlet option have been added to the types.

- Submit grate inlet calculations to show how much flow will be captured.

GBA Response: Calculations have been added to the calculation table to show the headwater at each grate inlet for the designed flow.

- Please submit design information for each Nyoplast drain basin non-solid lid type that shows drainage captured. Inlet capacity charts from the manufacturer showing the specific design point for each inlet is acceptable.

GBA Response: Nyloplast inlet capacity charts area attached.

We believe we have addressed all comments on this project. If you have any additional questions or concerns, please feel free to contact us.

Sincerely,

GEORGE BUTLER ASSOCIATES, INC.

Clint Loumaster, P.E.