



**Metropolitan
St. Louis Sewer
District**

2350 Market Street
St. Louis, MO 63103-2555
(314) 768-6200

September 14, 2021

Mr. Brandon Harp, PE
Civil Engineering Design Consultants, Inc.
10820 Sunset Office Dr
Sunset Hills, MO 63127

Re: 21CNCPB-00055 – Together Credit Union – 10005 - Manchester Rd.
Preliminary Site Plan Basic Conceptual Review
MSD Ref. No. 21CNCPB-00055

Dear Mr. Harp:

MSD has completed the **basic conceptual review** of the referenced preliminary site plan. Based upon same, the following comments are provided:

Project Summary

This project site is located on 10005 Manchester Road, Warson Woods in the St. Louis County. The site area is located in the Lemay WWTP service area, the River Des Peres watershed, and Deer Creek sub-shed.

The site is currently a vacant lot where it had a one-story building, sidewalks, parking spaces, and green spaces. The proposed project is to build an office building and site area for parking spaces,

Stormwater – Water Quality/Volume Reduction/Detention/Channel Protection

Based on the plan information provided, the site development will encompass approximately 0.85 acres and what looks to be about 0.85 acres as disturbed. Over 20% of the site is impervious and the development activities proposed will occur predominately on impervious portions of the site.

Therefore, this project is categorized as “Redevelopment” for purposes of establishing storm water management goals and compliance requirements.

Current MSD records indicate no major downstream problems and therefore the 2000 aerial will be used to determine the existing site condition for all disturbed areas when determining the runoff differential and the storm water management quantity goals for the site. This site is located within the separate system areas therefore, Water Quality Volume (WQv) is required, if the site disturbance exceeds 1 acre, Channel Protection Volume (CPv) is required if the differential exceeds 2 cfs. as Flood Protection will be required. The differential Q calculation was not provided with this conceptual submittal.

Onsite watershed boundaries, drainage area acreages and discharge points shall be maintained as close

to their pre-developed condition as possible. As the site currently appears to sheet flow to its drainage points, concentration of the flows should be avoided so as not to negatively impact neighboring properties.

Please refer to Sheet C01 for various comments.

This project is not eligible for future MSD Green Infrastructure reimbursement since the site is not inside of the program area.

A drainage area map (DAM) is required for all conceptual and formal review of projects.

If you choose to construct volume reducing BMPs such as bioretention, permeable pavement, green roof, or other MSD approved infiltration BMPs below are additional requirements:

A maintenance agreement and reserve area shall be provided for all required BMP's and to be provided by the land owner.

The following information will be required for the volume reducing BMPs:

1. Maintenance agreement documents with BMP Reserve exhibit plats.
2. Stormwater Management Facilities Report, The calculations report format shall follow the outline in the "BMP Toolbox" section on the MSD website. The calculations shall be separated from the operations and maintenance (O&M) portion of the report. The O&M report template format:
<http://www.stlmsd.com/what-we-do/stormwater-management/bmp-toolbox/maintenance-responsibilities>
3. BMP drainage area map. This map should show the site boundary, proposed BMP(s), calculate and label the area of disturbance/maintenance, calculate and label the area of treatment, and provide a BMP credit summary table.
4. MEP spreadsheet. This item can be found in the "BMP Toolbox" under the "Calculation and Report Preparation Tools" section on the MSD website. The total project disturbed area plus any additional offsite undisturbed areas tributary to the BMP's shall be used in this spreadsheet for pre-construction and post-construction runoff conditions.
5. Calculations for sizing of the BMPs.
6. Detailed cost estimate for the BMPs. This estimate should include any necessary excavation and installation costs associated with the BMPs.
7. Landscape Plan (including details, planting schedule, & watering requirements) for the BMP's.
8. Detail for the BMPs.
9. For permeable pavement, provide an overflow system or additional aggregate storage depth to prevent water in the open graded bed from rising into the Permeable Pavement for the 2-yr, 24-hr storm event. Any emergency overflow pipes placed within the subbase should discharge only when the storage volume is exceeded. The horizontal and vertical location of all

underdrains and overflow systems shall be determined by the design engineer and shown in the plans. Emergency overflow pipes and underdrain systems shall discharge to a storm water structure or daylight to a stabilized outfall. Provide these calculations in the Stormwater Management Facilities Report.

10. For permeable pavement. Provide the applicable permeable pavement notes and details on the plans. This information can be found in the “BMP Toolbox” under the “Technology Matrix”, “Permeable Pavement” section on the MSD website.

Sanitary

At this time, no significant capacity issue is noted downstream that would require additional analysis, mitigation efforts, or downstream upgrades as part of this development. It appears all sanitary sewers within this site should be labeled as “private” and there will be connected to the main 8” VCP sanitary sewer on Andrew Drive.

A new sampling manhole and an exterior grease trap will, be required on the sewer lateral if there will be a kitchen with a sink otherwise a sampling tee shall be located on the sewer lateral just outside of building.

Other Issues

Demolition of any existing sewers prior to MSD approval is prohibited. Permits will be required for removal and/or abandonment of existing sewers. Public storm and sanitary sewers that are to remain may require CCTV inspection prior to and after completion of construction activities. Any damage from construction activities would be required to be repaired at the developer’s expense.

Per MSD base map, the existing 8” VCP sanitary is terminated by 21L1-022s manhole. Per submitted plans there is a pipe shown connecting on the south side of this manhole that is inconsistent with our map, it is recommended to resurvey and verify this pipe.

Provide Property Owner information (name, address, locator number, email address) on the plans for each parcel that will be considered into one parcel for this project.

Provide the MSD “Standard Construction” note on the plans.

Provide the MSD “Public Sewer” note on the plans.

Provide a description of the MSD/USGS benchmark referenced on plans. Vertical Datum shall be referenced to the North American Datum of 1988 (NAVD 1988) and provide a conversion to NVGD 29 (A.K.A. U.S.G.S.). (NVGD 29 is the datum used for the St. Louis County & St. Louis City Benchmark Books). This information shall be shown on the cover sheet.

Provide the following MSD “Stormwater Management” note on the cover sheet, BMP drainage area map, and drainage area map:

**STORMWATER MANGEMENT NOTES:
LAND DISTURBANCE = X.XX ACRES**

There are no surcharge or sub-district/recoupment fees associated with this site.

Limitations of Conceptual Review

Detailed improvement plans for this project are not under formal review by the District at this time. Those plans and supporting engineering calculations shall be formally submitted to MSD for review, approval and permits prior to the commencement of construction activities.

Unless otherwise indicated, any requirements mentioned in the conceptual review should be addressed during the formal plan review process. Conceptual review is normally done only once. Any new questions or other additional changes to the originally submitted plans should normally be resolved during the formal plan review.

These conceptual comments are based on the submitted preliminary plans and data and are provided as an initial guide. Understand that this conceptual review has been completed based upon the information available at the time. Note, if site and surrounding area conditions, weather conditions, as well as available information changes at any time in the future such changes impact and/or change the comments made in this letter.

Conceptual review is subject to requirements of detailed review of final design plans and is subordinate to the review and approval of said final design plans. This project is not currently under review of final project plans.

The documents included with this Conceptual Review are as follows:

1. Original site plan with comments
2. Maxima, Hansen data record for downstream complaints, Site Data
3. St. Louis County Parcel Record Data
4. Site Photo
5. MSD base maps parcel (current), from Year 2000 & 2021
6. MSD base map – aerial
7. Maintenance Agreement Corp.
8. MSD Standard General Notes

Sincerely,

Nick Safdari

Nick Safdari, P.E.

Civil Engineer, Engineering / Planning Dept.

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