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

February 3, 2023

Mr. Todd Ehlen
Crawford, Murphy & Tilly
One Memorial Drive, Suite 500
St. Louis, MO 63102

Re: Lindbergh/Olive Mixed Use Master Plan – 10300 Olive Blvd.
Preliminary Site Plan Conceptual Review
MSD Ref. No. 23CNCPB-00003

Dear Mr. Ehlen:

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

This project site is located in the Lemay WWTP service area, the River des Peres watershed, and the Deer Creek sub-shed. Jack Matthews Development is proposing to raze some existing building structures, parking areas, and campus roadway, to accommodate the proposed mixed-use complex that will include retail, commercial, dining, office space, apartments, townhomes, hotels, and parking. Three wet detention ponds were shown on the plan sheet provided. The submitted plans did not indicate the area of disturbance or the stormwater runoff differential.

Plans previously submitted to MSD for review at the 10300 Olive Blvd. property can be found under records P000394600-04, P001074900-01, P001578400-01, P002697800, P003065200, and 19MSD-00340. Plans that were submitted for the property, but subsequently withdrawn, can be found under records P001578402, P003115000, and 21MSD-00059/21FLPLS-00006. Information records for the property are 19INFOR-00067, 20INFOR-00578, and 22INFOR-00209. The project files can be found online by searching on MSD's project tracking system (https://aca-prod.accela.com/STLMSD/Default.aspx)

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

Over 20% of the site is impervious and the development activities proposed on this plan 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 with respect to our region's MS4 permit. Onsite watershed boundaries, drainage area acreages and discharge points shall be maintained as close to their pre-developed condition as possible. Current MSD records indicate downstream stormwater problems that will require the site to use the undeveloped or "back to grass" existing site condition for all disturbed areas when determining the runoff

differential and stormwater management goals for this site.

The site disturbance appears to be over one acre, which will require post construction Best Management Practices (BMPs) to be installed to treat the water quality volume (WQv) per MSD regulations, in which case volume reduction BMPs should be implemented wherever possible. The likely runoff differential surpassing the 2 cfs threshold will require post construction Best Management Practices (BMPs) to treat Channel Protection Volume (CPv) and Flood Protection (Qp) for the site. The Deer Creek watershed release rate for routed detention facilities is a "zero increase" watershed. Volume reducing techniques including bioretention, permeable pavement, amended soils, etc. are acceptable. A maintenance agreement and reserve areas are required for BMPs and are to be provided by the landowner.

Wet detention ponds were shown on the submitted plan sheet, but no specifications were given. The wet ponds should be designed to MSD standards. Please also reference the Maryland Manual. The minimum drainage area to a wet pond is 25 acres. Please refer to the Maryland Manual for information about safety and aquatic benches, pond buffer, non-clogging Low Flow Orifice, riser, pond drain, valves, and safety features. Wet pond evaporation is not considered volume reduction by MSD.

Two reports will need to be submitted during formal plan review. The Stormwater Management Facilities Report: Calculations should contain an executive summary, all calculations, MEP spreadsheets, and drainage area maps. An outline of what to include can be found at https://msdprojectclear.org/what-we-do/stormwater-management/bmp-toolbox/calculation-and-report-preparation-tools/stormwater-management-facilities-report/ . A separate report for the Operations and Maintenance Plan should also be submitted, including the maintenance plan, checklists, and information about reporting. A link for the outline of the Operations and Maintenance Plan can be found at the link above.

A BMP Drainage Area Map should be submitted with the formal plan submittal. See the attached document MSD BMP Drainage Area Map.docx. Any proposed BMPs are to be sized based on their tributary areas. Maintenance of any proposed BMPs will be the obligation of the property owner of the parcel the stormwater facilities are located on. The record property owner of the parcel containing the storm water controls will be required to execute a maintenance agreement with MSD, establish a reserve area for the stormwater facilities, and assume responsibility for their maintenance.

The engineer should carefully outline the drainage areas to the sewers affected by this development and be prepared to submit sewer capacity hydraulics with the formal submittal. It is recommended that the hydraulic capacities be run through any relocated/new sewers as well as any sewers to which the development is tributary. Those "in-place" hydraulics should extend a minimum of two reaches downstream of any proposed work. Further site storm water attenuation may be required should sewers not have sufficient capacity. There should be no deviation from the current service level as a result of this project.

A floodplain study is required since runoff will exceed a 60" pipe per previous conversations about the site. See 22INFOR-00209 for previous correspondence regarding the subject site. Please reference chapter 5 of MSD's *Rules and Regulations and Engineering Design Requirements for Sanitary Sewer and Stormwater Drainage Facilities, 2018* for general floodplain requirement criteria.

Sanitary

Existing sanitary laterals shall be identified on the plans. Any laterals being removed or abandoned shall be noted as such on the plans and shall comply with MSD standard specifications.

Please provide sanitary loading calculations for the existing and proposed conditions up to manhole 17M4-109S. If the system does not have capacity, sanitary mitigation may be required.

The conceptual plans did not indicate basement levels or relative sewer connection elevations. The requirement for strapped plumbing will be evaluated during formal review and may apply.

An exterior grease trap and sampling manhole will be required for any kitchens with three-compartment sinks. Each internal use should have its own dedicated sanitary lateral available for sampling (ie, kitchens, restrooms, etc.). A separate lateral shall be installed to service the restrooms and shall remain separate until the sampling manhole, after which the laterals can be a single lateral. Please refer to latest plumbing code for other requirements that may apply. Sanitary design shall be in compliance with section 3.030.09.11.

Details for any grease/oil separators should be included in the plan sheets during the formal review process. The plumbing drawings for the proposed buildings should be submitted during the formal plan review.

All covered parking space will require drainage to be routed through a sand/oil separator prior to the sanitary sampling apparatus. Access drives and ramps that are exposed to direct rainfall are to be routed separately to the storm sewer.

Other Issues

All known existing easements should be shown on the plan sheets with the plat book and page or deed book and page indicated with the easement. Proposed public sewers, if any, will need to be within an existing easement or a new easement must be granted for the public sewer. Easements are to be a minimum 10' wide and centered on the sewer. If easements are recorded with a subdivision plat, the required notes should be included. See document *MSD Standard Plan Notes.docx* attached to record 23CNCPB-00003 for more information.

A connection fee will be required based on the number and size of any new domestic water service taps. Existing water taps destroyed by this project or previously destroyed will factor in as a credit that will be applied towards the project's connection fee. Information from Missouri-American Water concerning the service may also be requested during the formal plan submittal. The credit available for tap destroys as well as new connection fees based on the proposed domestic services can be found at the following link. (https://msdprojectclear.org/doing-business/development-review/required-documents-checklists/connection-fees/)

Current MSD records do not indicate any known hazardous areas around the site. Other federal, state, and local authorities that have jurisdiction should be contacted to determine the presence of any hazardous material as MSD does not have jurisdiction and MSD's records may not be as accurate as the authority with jurisdiction.

Provide the MSD structure names that are shown on the attached MSD base map. If an MSD structure name does not exist for a structure, label the structure as "NO MSD ID". Provide diameters and materials of all existing pipe (e.g., brick sewer). Provide top and flowline elevation information for the existing structures. This information needs to be shown on the plans during formal plan review.

There are no surcharge or sub-district/recoupment fees associated with this site. This site is not within the Green Infrastructure program area.

Coordination should occur with the site and the Army Corps of Engineers. Work within MODOT right-of-way will require a letter of approval from MODOT stating that they are okay with the proposed work.

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

Unless otherwise indicated, any requirement 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 could 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.

Sincerely,

Sara Kammerer

Sara Kammerer
Assistant Engineer
MSD Engineering / Planning – Development Review

Cc: File – 23CNCPB-00003