LEE'S SUMMIT
MISSOURI

DEVELOPMENT SERVICES

Commercial Final Development Plan
Applicant's Letter

Date: Tuesday, March 19, 2019

To:

Property Owner: MID-CONTINENT PUBLIC LIBRARY	Email: Fax #: <NO FAX NUMBER>
Applicant: MID-CONTINENT PUBLIC LIBRARY	Email: QFUNG@MYMCPL.ORG Fax #: <NO FAX NUMBER>
Engineer: OLSSON ASSOCIATES (BRIAN LADD)	Email: BLADD@OLSSONASSOCIATES.COM Fax #: (913) 381-1174
Architect: SAPP DESIGN ARCHITECTS	Email: STUFFLEBEAM@SDAARCHITECTS.COM Fax #: <NO FAX NUMBER>

From: Shannon McGuire, Planner

Re:

Application Number:	PL2019043
Application Type:	Commercial Final Development Plan
Application Name:	MID-CONTINENT PUBLIC LIBRARY
Location:	2240 SE BLUE PKWY, LEES SUMMIT, MO 64063

Electronic Plans for Resubmittal

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 shall be provided in the following formats:

- Plats – All plats shall be provided in mulit-page Portable Document Format (PDF).
- Engineered Civil Plans – All engineered civil plans shall be provided in multipage Portable Document Format (PDF).
- Architectural and other plan drawings – Architectural and other plan drawings, such as site electrical and landscaping, shall be provided in multi-page Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).

Please contact Staff with any questions or concerns.

Excise Tax

On April 1, 1998, an excise tax on new development for road construction went into effect. This tax is levied based on the type of development and trips generated. If you require additional information about this development cost, as well as other permit costs and related fees, please contact the Development Services Department at (816) 969-1200.

Review Status:

Revisions Required: One or more departments have unresolved issues regarding this development application. See comments below to determine the required revisions and resubmit to the Development Services Department. Resubmit six (6) full size sets of plans (no larger than 24"x36") folded to 8-½"x11", four (4) copies of the comment response letter, and one (1) digital copy following the electronic plan submittal guides as stated above. Revised plans will be reviewed within five (5) business days of the date received.

Required Corrections:

Planning Review	Shannon McGuire (816) 969-1237	Planner Shannon.McGuire@cityofls.net	No Comments

Engineering Review	Gene Williams (816) 969-1223	Senior Staff Engineer Gene.Williams@cityofls.net	Corrections

1. Concrete-lined low flow channels are not allowed in the City of Lee's Summit. These low flow channels are shown throughout the bottom of the detention basin.

2. Sheet C1.3: The proposed ADA-accessible ramps are called-out, without any corresponding detail sheet. We do not allow field design of these features in the City of Lee's Summit. The standard drawings shown in the back of the plan set should be removed (these are intended for retrofits), and a site-specific design provided. All items listed in Section 5304.8 of the Design and Construction Manual must be included, including the requirement that three (3) cross-sections be provided along the ADA-accessible ramp, elevation call-outs, slope call-outs to the nearest tenth of a percent, dimensions, etc. Please be aware the City has adopted standards that exceed the PROWAG standard. Cross-slope is limited to 1.5%, and running slope of the ramp is limited to 7.5%.

3. Sheet C5.0: Specific slope call-outs are needed in the detention basin bottom. As shown, it appears there is less than 2.0% slope in certain portions of the detention basin. All portions of the basin must be at or greater than 2.0% slope. As previously discussed, concrete-lined low flow channels are not allowed in the City of Lee's Summit.

4. Sheet C5.4: Detail B shows what appears to be an ADA-accessible ramp detail. It is illegible, and appears to be missing the items listed in Section 5304.8 of the Design and Construction Manual.

5. Sheet C5.4: Detail C is provided with no corresponding reference as to where it is located. Please clean-up this sheet so it is clear what is being proposed, and where.

6. Sheet C5.5: Please see previous comments about clean-up. Detail f and Detail D are provided, with no frame of reference.

7. Sheet C6.0: A separate domestic water line tap is required. In addition, copper line is required from the main to the meter, as well as additional copper line from the meter and beyond. Please see the City standard detail you have provided elsewhere in the plan set for a detailed explanation of what is required for the domestic water service.

8. Sheet C6.0: A cut-in tee is required for the fire line. In addition, ensure the fire line and the domestic water is shown connecting to the 12 inch line, NOT the 20 inch transmission main. No taps or tees are allowed to connect to the 20 inch transmission main.

9. Sheet C5.0: A backflow vault is shown, with no provision for drainage. There are several options, but one option should be selected. Either daylighting, connection to a storm structure, or construction of an infiltration trench

beneath the sump is sufficient. Typically, we have seen the installation of a 2 foot by 5 foot deep, fabric-lined and clean rock-filled infiltration trench as sufficient for drainage of the vault. Provide notes on the plan view, as well as notes on the standard detail showing how this will be drained.

10. Sheet C10.0: The typical section views of the asphaltic concrete pavement do not meet the Unified Development Ordinance (UDO) in terms of required thickness, base, or subgrade. Please be aware that any deviation from the UDO concerning alternate pavement design will require actual field sampling, and must not be based on assumed soil values.

11. Sheet C10.2: Please remove all references to standard details for ADA-accessible ramps. These are intended for retrofit projects, and not new projects. A site-specific design is required for each ADA-accessible ramp, and include the bullet point items included in Section 5304.8 of the Design and Construction Manual.

12. Sheet C10.2: Please add notes on the backflow vault showing how the sump will be drained.

13. Sheet C10.2: A typical section view of the curb and gutter, in relation to the pavement section, is required. It must show the aggregate base and geogrid/chemically-stabilized subgrade extending a minimum of 1 foot laterally from the back of curb. This helps prevent curb and gutter "rotation".

14. Sheet C10.3: Please remove all references to standard drawings showing ADA-accessible ramps. These are intended for retrofit projects, not new projects. A site-specific plan is required with the minimum information required under Section 5304.8 of the Design and Construction Manual.

15. Sheet C10.4: Please call-out the location of the trench check on the plan view for the sanitary sewer connection.

16. Utility Sheet: A cleanout is shown at the sanitary sewer connection point. Was this intended to be a call-out for a new wye connection? Please reference the City standard drawing on the plan view, to ensure the proper procedure is followed on this connection. Tracer wire is also required in accordance with the standard drawing.

17. Sheet C10.6: The number of orifices for the perforated riser does not appear to match what is shown in the stormwater report. Please check.

18. Sheet C10.6: The weir elevation does not appear to match what is shown in the stormwater report.

19. Sheet C10.6: The elevation of the first 1 inch orifice does not appear to match what is shown in the stormwater report.

20. MoDOT approval is required for all work within their right of way (i.e., Blue Pkwy.).

21. The new commercial entrance on Battery Dr. must be shown as an 8 inch thick KCMMB concrete mix, from the right of way line, to the sawcut. A clean joint must be provided at the interface.

22. The outlet structure is shown with a 18 inch pipe, discharging into an 18 inch pipe. Were calculations provided showing the receiving storm sewer is capable of managing these flows?

23. The "Final Stormwater Study" revised in Feb. 2019 contained the following discrepancies: 1) page 8 of the report describes a series of 6 - 1 inch holes for the perforated riser, but the plans show more than 6 holes, 2) page 8 and the appendix describes the weir being at 1008.75, but the plans show 1008.95, 3) page 9 shows the IE elevation of the WQv plate at 1007.0, but the plans show 1003.71, and the appendix shows 1006.5, 4) page 9 and the appendix shows the weir at 1008.75, but the plans show 1008.95, 5) the appendix shows 4 perforations rather than 6 as discussed in

the report, 6) the appendix shows what appears to be 7 perforations rather than the 6 described elsewhere in the body of the report, and also appears to contradict what is shown on the plans.

24. It is likely that a revised stormwater study is required based on these apparent inconsistencies.

25. A SWPPP is required prior to approval of the plans.

26. An Engineer's Estimate of Probable Construction Costs is required prior to approval of the plans. This itemized estimate should only include the sitework for the project.

Fire Review	Jim Eden (816) 969-1303	Assistant Chief Jim.Eden@cityofls.net	No Comments
Traffic Review	Michael Park (816) 969-1820	City Traffic Engineer Michael.Park@cityofls.net	No Comments
Building Codes Review	Joe Frogge (816) 969-1241	Plans Examiner Joe.Frogge@cityofls.net	No Comments

SAPP DESIGN + helix. ARCHITECTS

Commercial Final Development Plan Response

Application Number: PL2019043
Mid-Continent Public Library – East Lee's Summit Branch

March 26, 2019

The following is a written summary of responses to the Commercial Final Development Plan dated March 19, 2019. Where associated Specifications and/or Drawings are included, they will be referenced. Also note that additional clarifications may be clouded on drawings that do not specifically relate to the plan review comments, but are a part of this overall revision to the contractor.

ENGINEERING REVIEW

1. Concrete-lined low flow channels are not allowed in the City of Lee's Summit. These low flow channels are shown throughout the bottom of the detention basin. *– The low flow channels were requested by the owner to improve drainage in the basin bed and reduce erosion. They have been removed from the drawings, but the owner would like the city to understand that if erosion problems arise once the pond becomes operational, they may request approval for low flow channels in the future.*

2. Sheet C1.3: The proposed ADA-accessible ramps are called-out, without any corresponding detail sheet. We do not allow field design of these features in the City of Lee's Summit. The standard drawings shown in the back of the plan set should be removed (these are intended for retrofits), and a site-specific design provided. All items listed in Section 5304.8 of the Design and Construction Manual must be included, including the requirement that three (3) cross-sections be provided along the ADA-accessible ramp, elevation call-outs, slope call-outs to the nearest tenth of a percent, dimensions, etc. Please be aware the City has adopted standards that exceed the PROWAG standard. Cross-slope is limited to 1.5%, and running slope of the ramp is limited to 7.5%. *– The location of the grading details were shown on C5.1 and C5.2. To clarify the location of the Grading Details, the call outs have been added to Sheet C5.0. All of the ramp details (C5.4 and C5.5) have been revised to meet the 1.5% cross slope maximum and the 7.5% running slope maximum. They have been annotated to show the specific spot elevations and slopes required in Section 5304.8. The LS GEN-3B detail has been removed from C10.2, because they were not used. LS GEN-3A is still shown on C10.3 because we believe it provides valuable information to the contractor. It has been modified to show the maximum slopes for new construction and references the specific grading detail for each ramp.*

3. Sheet C5.0: Specific slope call-outs are needed in the detention basin bottom. As shown, it appears there is less than 2.0% slope in certain portions of the detention basin. All portions of the basin must be at or greater than 2.0% slope. As previously discussed, concrete-lined low flow channels are not allowed in the City of Lee's Summit. *– The bottom of the basin has been regraded to for the removal of the low flow channels. Minimum slopes (ie 2.0%) for the bottom of the basin have been provided on C5.1*

4. Sheet C5.4: Detail B shows what appears to be an ADA-accessible ramp detail. It is illegible, and appears to be missing the items listed in Section 5304.8 of the Design and Construction Manual. *– Additional spot elevations and slopes have been added Detail B to conform to 5304.8.*

5. Sheet C5.4: Detail C is provided with no corresponding reference as to where it is located. Please clean-up this sheet so it is clear what is being proposed, and where. *– Additional spot elevations and slopes have been added Detail C to conform to 5304.8. A grading detail location reference has been added to C5.0.*

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sdaarchitects.com

6. Sheet C5.5: Please see previous comments about clean-up. Detail f and Detail D are provided, with no frame of reference. *– A grading detail location reference has been added to C5.0.*

7. Sheet C6.0: A separate domestic water line tap is required. In addition, copper line is required from the main to the meter, as well as additional copper line from the meter and beyond. Please see the City standard detail you have provided elsewhere in the plan set for a detailed explanation of what is required for the domestic water service. *-The tap for the domestic meter has been relocated to the 12" main. Additional keynotes have been added to indicate the tap and copper service lines per the city detail on C6.0.*

8. Sheet C6.0: A cut-in tee is required for the fire line. In addition, ensure the fire line and the domestic water is shown connecting to the 12 inch line, NOT the 20 inch transmission main. No taps or tees are allowed to connect to the 20 inch transmission main. *– A caution note has been added for the contractor to ensure the connection is made to the 12" main and that the 20" main remains undisturbed.*

9. Sheet C5.0: A backflow vault is shown, with no provision for drainage. There are several options, but one option should be selected. Either daylighting, connection to a storm structure, or construction of an infiltration trenchbeneath the sump is sufficient. Typically, we have seen the installation of a 2 foot by 5 foot deep, fabric-lined and clean rock-filled infiltration trench as sufficient for drainage of the vault. Provide notes on the plan view, as well as notes on the standard detail showing how this will be drained. *– a 2" PVC line has been added to drain the BFP to the ditch to the south.*

10. Sheet C10.0: The typical section views of the asphaltic concrete pavement do not meet the Unified Development Ordinance (UDO) in terms of required thickness, base, or subgrade. Please be aware that any deviation from the UDO concerning alternate pavement design will require actual field sampling, and must not be based on assumed soil values. *– a geotechnical study was performed for this site. The pavement sections listed reflect the geotechnical recommendations of that report. A copy of the report is included in this submittal.*

11. Sheet C10.2: Please remove all references to standard details for ADA-accessible ramps. These are intended for retrofit projects, and not new projects. A site-specific design is required for each ADA-accessible ramp, and include the bullet point items included in Section 5304.8 of the Design and Construction Manual. *-The LS GEN-3B detail has been removed from C10.2, because they were not used. LS GEN-3A is still shown on C10.3 because we believe it provides valuable information to the contractor. It has been modified to show the maximum slopes for new construction and references the specific grading detail for each ramp.*

12. Sheet C10.2: Please add notes on the backflow vault showing how the sump will be drained. *– a 2" PVC line has been added to drain the BFP to the ditch to the south.*

13. Sheet C10.2: A typical section view of the curb and gutter, in relation to the pavement section, is required. It must show the aggregate base and geogrid/chemically-stabilized subgrade extending a minimum of 1 foot laterally from the back of curb. This helps prevent curb and gutter "rotation". *– A detail has been added to C10.0 to show the aggregate base and subgrade extending 1' past the back of curb.*

14. Sheet C10.3: Please remove all references to standard drawings showing ADA-accessible ramps. These are intended for retrofit projects, not new projects. A site-specific plan is required with the minimum information required under Section 5304.8 of the Design and Construction Manual. *-The LS GEN-3B detail has been removed from C10.2, because they were not used. LS GEN-3A is still shown on C10.3 because we believe it provides valuable information to the contractor. It has been modified to show the maximum slopes for new construction and references the specific grading detail for each ramp.*

15. Sheet C10.4: Please call-out the location of the trench check on the plan view for the sanitary sewer connection. *-The location of the trench check has been added to C6.0 including the keynote.*

16. Utility Sheet: A cleanout is shown at the sanitary sewer connection point. Was this intended to be a call-out for a new wye connection? Please reference the City standard drawing on the plan view, to ensure the proper procedure is followed on this connection. Tracer wire is also required in accordance with the standard drawing. *-The key notes were misnumbered. The connection was a wye. A note has also been added on C6.0 to the service line to indicate a tracer wire is required.*

17. Sheet C10.6: The number of orifices for the perforated riser does not appear to match what is shown in the stormwater report. Please check. *-The depth of the control structure was increased when the outlet piping was revised with the last submittal. The extra depth is to ensure that the storm does not interfere with the utilities to the west. This extra depth did not appear in the revised storm report. The outflows have been recalculated to account for this extra depth. The report has been revised accordingly. Other than the WSE's the control structure remains unchanged.*

18. Sheet C10.6: The weir elevation does not appear to match what is shown in the stormwater report. *The weir elevation has been revised to match the water surface level for the WQv event (1008.85).*

19. Sheet C10.6: The elevation of the first 1 inch orifice does not appear to match what is shown in the stormwater report. *-As stated previously calculations for the orifice/weir plate have been updated to match control structure on C10.6. The invert for the first 1 inch orifice 1003.30. That is now reflected in the storm report.*

20. MoDOT approval is required for all work within their right of way (i.e., Blue Pkwy.). *– The plans have been sent to MoDOT for comment. We have not heard back from them yet. You will be informed when we get their approval*

21. The new commercial entrance on Battery Dr. must be shown as an 8 inch thick KCMMB concrete mix, from the right of way line, to the sawcut. A clean joint must be provided at the interface. *– The commercial entrance detail shows an 8" pavement section. For clarity, the hatch on the commercial entrance and legend on the C4.0 and C4.1 has been revised to differentiate the 8" concrete pavement from the 6" concrete pavement on site.*

22. The outlet structure is shown with a 18 inch pipe, discharging into an 18 inch pipe. Were calculations provided showing the receiving storm sewer is capable of managing these flows? *– Capacity calculations comparing the 10 and 100 year flows in the outlet pipes hves been added by the profile for the outlet pipes on C7.0. This includes capacity calculation for the existing 18" pipe downstream of the site.*

23. The "Final Stormwater Study" revised in Feb. 2019 contained the following discrepancies:

1) page 8 of the report describes a series of 6 - 1 inch holes for the perforated riser, but the plans show more than 6 holes, *-The depth of the control structure was increased when the outlet piping was revised with the last submittal. The extra depth is to ensure that the storm does not interfere with the utilities to the west. This extra depth did not appear in the revised storm report. The outflows have been recalculated to account for this extra depth. The report has been revised accordingly. Other than the WSE's the control structure remains unchanged. The number of holes in the plate is 15.*

2) page 8 and the appendix describes the weir being at 1008.75, but the plans show 1008.95, *– The invert elevation has been recalculated based on adjust the perforated riser invert. The new elevation (1008.85) has been updated on C10.6 and the report.*

3) page 9 shows the IE elevation of the WQv plate at 1007.0, but the plans show 1003.71, and the appendix shows 1006.5, *-Calculations have been updated for the perforated invert to be 1003.30*

4) page 9 and the appendix shows the weir at 1008.75, but the plans show 1008.95, *-as stated above, the new invert for the weir is 1008.85*

5) the appendix shows 4 perforations rather than 6 as discussed inthe report,
As stated previously, the number of holes in the plate is 15.

6) the appendix shows what appears to be 7 perforations rather than the 6 described elsewhere in the body of the report, and also appears to contradict what is shown on the plans.
As stated previously, the number of holes in the plate is 15.

24. It is likely that a revised stormwater study is required based on these apparent inconsistencies. *-The updated storm water report is included in this submittal.*

25. A SWPPP is required prior to approval of the plans. *-The SWPPP has already been submitted to the city by the contractor.*

1) An Engineer's Estimate of Probable Construction Costs is required prior to approval of the plans. This itemized estimate should only include the sitework for the project. *– A few revisions need to made to our estimate based on this revision. I will email*